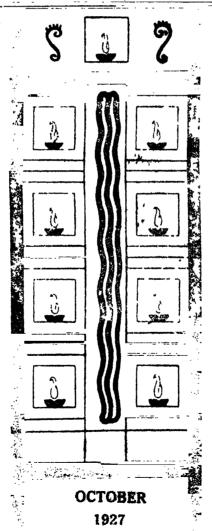
CA_CUTTA REVIEW



THE CALCUTTA REVIEW

ESTD. 1844]

THIRD SERIES: 1921

Honorary Editor-in-Chief: JAYGOPAL BANERJEE, M.A.

Supported by a strong BOARD OF CONSULTING EDITORS. Honorary Secretary: P. N. BANERJEE, M.A., B.L.

Matters for publication are to be sent to the Hony. Secretary, Calcutta Review, Senate House, Calcutta.

Our Agents for-

London—Messrs. Kegan Paul, Trench, Trubner & Co., Ltd., 38, Great Russell Street, W. C. 1.

NEW YORK-G. E. Stechert & Co., 31-33, East 10th Street.

BOMBAY-Messrs. D. B. Taraporevala & Sons.

Delhi-Messrs. A. H. Wheeler & Co.

PATNA-Messrs. A. H. Wheeler & Co.

CALCUTTA—Messrs. Thacker Spink & Co.; W. Newman & Co.; R. Cambray & Co.; The Book Company; A. H. Wheeler & Co. and Kar Majumdar & Co.

Annual subscription ... 8 8 only (including postage).

Half-yearly , ... 4 8 ,, ,, ,,

Single Number .. 1 0 per copy

Foreign ... 16 Shillings (including postage).

CONCESSION RATE:

For Professors, Lecturers, Teachers, Students, Registered Graduates, affiliated Schools and Colleges and for recognised libraries

Single copy ... 0 12

Copies at concession rate can be had only from the Manager, Calcutta Review, and not from agents.

Year begins from October; Half-yearly term from April.

For advertisement rates, agencies and for other particulars, apply to

8. K. RAY, M.A.,

Manager, Calcutta Review, Senate House, Calcutta.

: : INSURANCE : :

Manchester Assurance Co.

now merged with the

Atlas Assurance Co., Limited.

[Incorporated in Great Britain.]

Triton Insurance Co., Limited.

Eastern Insurance Co., Limited.

Canton Insurance Office, Limited.

[Incorporated in Hong-Kong.]

Hong-Kong Fire Insurance Co., Limited.

[Incorporated in Hong-Kong.]

All Classes of Fire, Marine, Life, Motor Car, Burglary, Fidelity Guarantee, Personal Accident, Workmens Compensation and Lift (Third Party liability) Insurance accepted at current rates.

JARDINE, SKINNER & CO., Agents,

FOR ANYTHING IN THE LINE OF

MICROSCOPES, BALANCES, BINOCULARS

and

SCIENTIFIC APPARATUS, Etc.

PLEASE SEND YOUR ENQUIRIES TO

BENGAL CHEMICAL

PHARMACEUTICAL WORKS, LD.,

15, COLLEGE SQUARE

CALCUTTA

HINDU FAMILY ANNUITY FUND

(For Bengali Hindus and Brahmos only.)

Established 1872 by Pand:t Iswar Chandra Vidyasagar.

Accumulated Fund 15 lacs.

GOVERNMENT OF INDIA ARE THE CUSTODIAN OF ITS FUNDS AND GRANT THE FUND CERTAIN FACILITIES.

Secure. (1) Annuities for life for your wife and other dependent relatives.

(2) Old Age Pension for your own support in old age.

(3) Educational Scholarship for your children in schools and colleges.

(4) Marriage Dowry for your daughters.

For prospectus and particulars apply to the SECRETARY,

5. DALHOUSIE SQUARE WAST, CALCUTTA.

USE DAILY

KESHRANJAN OIL

IN YOUR BATH AND TOILET.

IT COOLS THE BRAIN IMPROVES THE HAIR PREVENTS FALLING OFF

Exquisitely Aromatic and Refreshing.

Price Rupee One per phial.

Postage Armas Seven only.

Kaviraj N. N. Sen & Co., Ltd.,

Ayurvedic Pharmacy
18 & 19, Lower Chitpur Road,
CALCUTTA.

MANAGING DIRECTOR

Kaviraj SAKTIPADA SEN.

Advertisement

in

The Calcutta Review

is

An Investment

HALF RATE!!

Original Price Rs. 14.

HALF RATE Rs. 7.

Guaranteed for Ten Years.

22 ct. Rolled Gold Wrist Watches.

Any shape, any quality or any design is given at the rate of reduced price, Rupees Seven, with best Silk Strap free. Write now. This offer is limited. Only a few. Handy and beautiful to wear.

SWAN HOUSE, P. B. 508, P. T. MADRAS.

FOR OVERWORKED BRAIN AND NERVOUS DEBILITY-

ASHWAGANDHA RASAYANA

Price, Rs. 1-8 per phial. Charges 10 As.

B. L. SEN & CO.,

36, Lower Chitpur Road, Calcutta.

Medical Advice and Observer sent free.

FREE! TIME-PIECE!! FREE!!!

(Money Returned if not Satisfied)

Guaranteed 5 years.

To purchasers of our 22Ct Rolled Gold "Pearless" Wriestlet Watch, we give one Table Time-Piece Free with stamped guarantee of five years for both. Price per Watch with time-piece Rs. 7 Seven only, write now:—

THE SWITZERLAND WATCH CO.

(Direct Importers)

Post Box No. 1210.

MADRAS.

HANDSOME 14-Ct. ROLLED GOLD EXPANDING BRACELET WATCH No. 75



A new fashionable and elegant wristlet watch of a small size just suitable for both Gents and Ladies obtainable in any shape desired, best Swiss mechanism. Correct timekeeper, guaranteed for 3 years. (No. 75) wristlet watch (in any shape) complete with Expanding Bracelet. Price Rs. 7 only.

(No. 76) 22 ct. 5 years guaranteed rolled gold wristlet watch with bracelet Rs 8-4 only.

(No. 77) 22 ct. 10 years guaranteed rolled gold wristlet watch with bracelet. Rs. 10-8 only.

THE ENGLISH EMPIRE WATCH & CO.,

Post Box No. 1233; MADRAS.

FREE!

For One Month Only!!

FREE!!!

One best Fountain Pen fitted with Electric light is given away free!



To every purchaser of our 18 ct. Rolled Gold wrist watch, best British workmanship, beautiful case and of a dainty little size and accurate timekeeper, guaranteed for 3 years, very useful for gents and ladios we give one best fountain pen fitted with Electric light which is very highly useful for Reading, Writing, Walking, one and all. Every electric fountain pen will be sent complete with battery and hulb as free This is an astounding offer, Write to-day. Price wrist watch with free offer Rs. 6-15. 18 ct. Rolled gold wrist watch alone Rs. 5-15. Electric light pen alone Rs 2-8

WOOD-WARD & CO., Mount Road P. O., Madras.

NEW PUBLICATION

STUDIES INDIAN AND ISLAMIC

Containing Essays An Islamic and Indian—such as, The Caliphate, Marriage and Family
Life among the Arabs, Islamic Administrative System and Current India
Problems of To-day.

By S. KHUDA BUKHSH

(Ir'bneüs Oriental Series)

Price Rs. 7-8 plus V.P. charges.

AVAILABLE AT-22, ROYD STREET, CALCUTTA.

Works by Benoy Kumar Sarkar

ECONOMIC DRVELOPMENT: Snap-shots of World-movements in Commerce, Economic Legislation, Industrialism and Technical Education, Pages, 36+428. Price Rs. 8.

Sociological Review (London): This book is of interest to us Westerns on its own merits of extensive knowledge of us; as well as for its presentment of Indian outlooks beyond those commonly current. For instead of abstract politics we have here concrete economics, and seen as fundamental to politics, largely of a new kind. To the general student of economics this treatment should be suggestive; indeed at its best it is exemplary.

Prof. Sarkar has for many years been studying one European country after the other, and from many viewpoints: so his book is a result not only of reading, but of wide personal intercourse and travel, and full of economic information and social reflection from all these sources.

With all his descriptive concreteness, there are large and bold generalisations, and frequent passages of social criticism and interpretation; and these ranging over France and Germany, from America to Japan, and of course from India to Britain, and home again; in fact leading up to a broad sketch of an economic policy, very comprehensive for young India.

Alike as widely informative, and as actively stimulating this book will be found well worth looking through and thinking over, both in East and West.

Professor F. W. Taussig (Harvard University, U. S. A.): You lay out a large program in a state-manlike way. ** * What you aim to do would tax to the utmost the capacity of any set of people.

Professor L. T. Hobhouse (London): Your point of view is in some ways novel to me.

Professor E. R. A. Seligman (Columbia University, New York): Glad to notice that you do not share the opinions of your compatriot Gandhi about the industrial future. * * Very sensible and worth while.

THE POSITIVE BACKGROUND OF HINDU SOCIOLOGY. Book I. Pages 23+366. Rs. 7. Book II. Pages 240. Rs. 6.

Professor Alfred Marshall (Cambridge): An important contribution to our knowledge of India.

Professor Sir Gilbert Murray (Oxford): Not only full of learning but full of points that may throw light on the problems of my own studies.

THE POLITICAL INSTITUTIONS AND THEORIES OF THE HINDUS—Pages 24+242. Price Rs. 9.

Journal of the Royal Asiatic Society (London): He seeks to give a readable account, and this he has done with frequent allusions and much elegant writing.

International Review of Missions (London): A remarkably incisive, and learned piece of scholarship.

THE FUTURISM OF YOUNG ASIA AND OTHER ESSAYS ON THE RELATIONS BETWEEN THE EAST AND THE WEST. Pages 10+399. Rs. 9.

Manchester Guardian: An introductory essay and five astonishing monographs.

American Political Science Review: The wide range of subjects intelligently discussed reveals evidence of unusual versatility on the part of the author.

THE POLITICS OF BOUNDARIES AND TENDENCIES IN INTERNATIONAL RELATIONS. Pages 18+323. Price Rs. 3-8.

THE FOLK-ELEMENT IN (HINDU CULTURE—Pages 20:312.

GENERAL (NGS TO YOUNG INDIA: Messages of Cultural and Social Reconstruction: with illustrations. Pages 22+158. Re. 1,

GHUOKERYERTTY CHATTERJEE & CO., LTD.,

15. College Square, Calcutta.

THE CALCUTTA REVIEW

OCTOBER, 1927

CONTENTS

	Page.
Trusts and Rationalization: Aspects of the New Indus-	
trial Revolution—Benoykumar Sarkar, M.A., Lecturer,	
Post-graduate Department, Calcutta University	1
The Conception of Divine Personality in the Sankhya	
Philosophy—A. K. Majumdar, M.A	34
Love Misunderstood (Poem)—Mohinimohan Chatterji,	
M.A., B.L., Solicitor, Calcutta	54
Barbut Inscriptions-B. M. Barua, M.A., D.Lit., Pro-	
fessor, Calcutta University	56
Banking in Mysore—P. Subbaraya Sastry, M.A., Princi-	
pal, Metropolitan College, Mysore	68
To Pearl (Poem)—Linwell Röhl, Minneapolis, U.S.A	71
Ancient Indian Life, II—Rai Bahadur Jogeschandra Ray,	
M.A., Vidyanidhi	72
The Body Is Passing Away (Poem)—Nalinimohan	
Chatterjee, M.A., Lecturer, Post-graduate Department,	
,	105
Calcutta University	
Awakened Asia and Germany in World Politics -Tarak-	
nath Das, A.M., Ph.D., Münich	•
Life of the Celebrated Sevagy (A Translation) - Surendra-	
nath Sen, M.A., Ph.D., Lecturer, Calcutta University	7 111
Reviews:	
Pavanadu(am of Dhoyī-N.P.C	151
Muffled Drums—I.J.S.T.	126
Gnosticism—I.J.S.T	126
The Fire of Creation—I.J.S.T.	127
Presidency College Register—An Ex-Student	127

CONTENTS.

A Disclaimer (Correspondence)—H. C. Raychaudhuri, M.	.A	Page.
Ph.D., Lecturer, Calcutta University	•••	129
Ourselves:		
Dates of Different University Examinations		130
Results of University Law Examinations	•••	130
J. C. Ghose Research Prize for 1926		131
Adharchandra Mukherji Lectures for 1927	•••	131
Mr. S. K. Maitra and The Ethics of the Hindus	•••	131

NOTICE

Subscribers are particularly requested to note that the November issue will be sent by V.P.P. if the amount of subscription for 1927-28 is not received by the Manager of the *Review* on or before the 3rd November, 1927.

P. N. BANERJEE.

Hony. Secretary, Calcutta Review.

A FEW COPIES OF THE

Sir Asutosh Number

OF

THE CALCUTTA REVIEW

are still available. Price Rupee One per copy. For students Annas Twelve only. V. P. charges extra. Please write to The Manager, The Calculta Review,

Senate House, Calcutta.

PURCHASE YOUR GRAMOPHONES AND MUSICAL INSTRUMENTS



M. L. SHAW

From

The Premier Dealer in Gramophone and Musical Instruments.

5-1, Dharamtala Street, CALCUTTA.

Municipal Market Branch—

7-c, Lindsay Street, CALCUTTA.



THE SURPRISL ATTACK

(A miniature from a manuscript of the Khamsah of Nizami, dated 928 A.H. (1521 A.D.)

THE CALCUTTA REVIEW

OCTOBER, 1927

TRUSTS AND RATIONALIZATION: ASPECTS OF THE NEW INDUSTRIAL REVOLUTION

THE LIMITS OF ECONOMIC LEGISLATION.

India, passing as she has been through some of the humbler phases of industrialization, is at present encountering a tremendous conflict with the adult industrial powers. In order to withstand the competition successfully Indian economists and statesmen are as a rule used to looking to the government for help, first, in regard to the tariff policy, and secondly, in regard to the rate of foreign exchange such as might be favourable to. the industries at home. These questions of economic legislation are important enough to demand the serious attention of But it is no less worth his while to attend the businessman. carefully to the technical and organizational aspects of contem porary industry and trade. For, it is neither the tariff alone. nor the currency policy alone, that, if at all, is adversely affecting India's position in the competition with the foreign industrial These latter have been incessantly improving their methods of production and marketing. To-day they are so well knit that it is hardly possible for the modern Indian industries to stand by the side of their enterprises. We may recall that

Acen. No. 1386 Date 23.8.77

on account, among other reasons, of almost similar circumstances it was once impossible for the cottage industries of India to withstand the shock of machine-made goods and machineries.

THE NEW INDUSTRIAL REVOLUTION.

A new industrial revolution is on before our eyes in Europe and America. And although India to-day is but experiencing in the main the earlier throes of the economic transformation which by the latest Eur-American standard may aptly be described as the old industrial revolution it would not be inappropriate to attempt forming an estimate of the advances that the go-ahead world has been scoring upon us at the present moment.

The new industrial revolution like the old is manifest in two directions. First, there is the recent series of technical improvements, both engineering and chemical, embodied as much in the machineries as in the "power" organization and manipulation of raw materials, which are swiftly re-creating the foundations of production and the processes of transportation and circulation of wealth.

In the second place, there has been proceeding pari passu a rapid reorganization of the forms of economic life. The types of business organization to which the world is getting used belong to phases of economic morphology for which the parallels or duplicates are hardly to be found in the world of even a generation ago. We are speaking of the cartels and trusts and their present-day developments.

JAPANESE STEEL CARTEL

In 1926 some representatives of Japanese iron and steel works were on tour in Germany studying the organization of the same industry in that country. In May 1927 they have established a cartel on the German model which is to last for

the present for three years. The cartel comprises both the state and the private concerns.

There are two important objects of the Japanese steel-cartel. In the first place, the relations of the state works with the private works have been precisely laid down. Secondly, the cartel has sought to emphasize the importance of iron and steel products for private industrial establishments. It has clearly defined the amount of iron and steel that each of the state and private works is to reserve for private industry.

In regard to manufacture, the cartel has followed the principle of specialisation and division of labour very closely. Certain qualities of steel are to be produced exclusively by the state works and certain others exclusively by the private works. In regard to other qualities there is a proportion to be observed by each class.

A committee has been set up to supervise and control the programme of production according to these ideas. It consists of members representing all the works. One sen (nearly one pice) per ton of production is the contribution of each work to the cartel for its expenses of administration.

The cartel is likely soon to develop into a syndicate that will control both price and market. The tendency is already manifest in the establishment of a marketing-union by three of the cartel's biggest works. It is through this union that the total production of the cartel is being placed on the market.

THE ITALGAS OF TURIN.

In 1923 the Societa Italiana per il Gas was established at Turin with a capital of 10,000,000 lires. It began by superseding some of the smaller, poorer municipal gas works located in the second grade Italian cities, whose capital was too inadequate for the requirements of modernization and improved

¹ La Journee Industrielle (Paris), 23 August, 1926; chapters on coal and iron in Italy in Mortara's Prospettive Economiche 1927 (Milan, 1927).

technique. At Florence and Venice two French companies had been enjoying the privilege of furnishing the people with gas. The Societa bought off these privileges and emancipated two of Italy's great cities from dependence on foreign enterprise. In other big cities such as Turin and Milan where the gas companies were Italian, the Societa took care to assure itself of the majority of the shares. The same tactic was followed in regard to other cities such as Livourne, Trieste, Savone. Altogether the gas-supply of some 30 cities in northern Italy came within the sphere of the Societa's activity.

The next step in the evolution of the Societa consisted in the series of participations in the chemical industries with special reference to dyes. In 1925 it bought the French explosive works of Turin and established the Societa Esplodenti Cengio with a capital of 30,000,000 lires. This explosive factory is now well known in the world as Italian works for caustic alkali.

The establishment of works in Liguria for the treatment of iron pyrite has been one of the important ventures of the Societa following upon that of the explosive factory. Finally the control of the group of chemical concerns known as the Azogene as well as of the important coke works has passed into the hands of the Societa.

The capital of the Italgas trust is to-day 150,000,000 lires. In 1926 it obtained a loan of 5,000,000 dollars from Blair & Co., the financiers of New York. The heavy products controlled by it comprise the bye-products of coal, the powerful acids, the alkalis and derivatives of chlorine and synthetic ammonia compounds. The finished products range from military and industrial explosives to the colours and varnishes of all sorts.

There are some 50 companies within the sweep of the Italgas and it controls in each case at least 50 per cent. of the capital. This is the first example of a great vertical trust in Italian industry, commanding as it does the manufacture of goods in different stages of finishing from that of raw material

upwards through several series of factories. The institutions controlled by it may be divided into nine different groups.

· According to functions the nine groups are the following:-

- (1) The production of gas and coke and the supply of gas to 30 municipal areas as well as the recovery of bye-product are undertaken by the Societa Torinese Industria Gas Elettricita, abbreviated as the Stige.
- (2) The production of metallurgical coke is undertaken by three companies. Of these the Societa Camussi Gas of Milan furnishes coke to the foundries of Lombardy. The Societa Forni Coke of Vado Ligure furnishes its products to the foundries of the Monteponi Co. Then there is the Societa Italiana Coke of Mestre in Venetia.
- (3) The remnants (tar) of the gas and coke factories are distilled in the works of Turin, Vado Ligure, Marghera and Catrame. The hydrogen produced in the works of Vado Ligure is utilized by the Azogene Co. for the manufacture of ammonia compounds.
- (4) The heavy and light oils arising out of the distillations are disposed of as such in the public market or in the state railway-system. A part of these oils is also absorbed by chemical companies interested in the recovery of oil, extraction of naphthalene and manufacture of explosives.
- (5) The works located at Cengio prepare the intermediates for the manufacture of organic dyes and explosives. To this group of products belong aniline salts, chlorine derivates, naphthalene, ammonia compounds, benzol compounds, electrolytic sodium, synthetic hydrochloric acid, azotic acid, picric acid, sodium sulphate, nitroglycerine, etc.
- (6) The colours and dye-stuffs constitute the speciality of three companies, the Societa Italica of Rho, the Union Colori of Milan and the Schiaparelli Co., of Turin.
- (7) The medical and pharmaceutical products are prepared at Turin by the Schiaparelli Co., and at Milan by the Societa Sottoprodotti Farmaceutici.

- (8) The explosives are manufactured by three companies. the Societa Esplodenti of Cengio, and the Societa Esplodenti e Munizioni and Unione Esplodenti of Rome.
- (9) The production of artificial silk is undertaken by the works of the Bonelli Dye Co., which has joined the Italgas Trust in 1926 in order to strengthen Italy's anilin industry.

LARGE, MIDDLING AND SMALL TRUSTS IN SOVIET RUSSIA.

The official statistics of Soviet Russia for the year 1926 recognise 357 trusts in big industry. This may be classified as follows :--

1.	"Large" trusts numbered at	36
2 .	"Middling" trusts	63
Q	" Small " trusts	258

Small ' trusts 200

The distinction between the large and the small trusts as well as the average strength of each trust in the two groups may be understood from the numerical importance of the working men employed in the different categories. The 36 large trusts account for 1,067,876, the average being 29,663. number of working men employed by the 258 small trusts is 199,417, thus giving an average of 753 per trust.

Now the total strength of labor in the "big industry" of Soviet Russia is estimated at 1,661,800. It is apparent, therefore, that not more than 12% of this force finds employment in the works belonging to the 258 "small" trusts. The remaining 88 per cent. is employed under the 99 large and middling categories.

The position of the middling trusts in Russian economy is clear. The total strength of working men employed therein is 394,507 and they are distributed over 63 trusts. The average

^{*} Verein Deutscher Ingenieure Nachrichten, Berlin, January 1927; U.R.S.S., Annuaire Politique et Economique pour l'annee, 1925-26 (Moscow, 1926).

per trust thus works out at 6,262. So far as the labor force is concerned the three types of trusts may then be defined as follows:—

- 1. Large, i.e. those with an average employment of 29,663
- 2. Middling, ,, ,, 6,262
- 3. Small, ,, ,, 753

The classification of Russian trusts according to the kind of industry shows interesting results. Of the 99 belonging to the first two groups, the textile industry alone is responsible for 29. The movement towards concentration is quite active, and in the course of the present year the six textile trusts of the Moscow region are going to be transformed into 3. The formation of large trusts and the extinction of smaller ones constitute the current tendency in the business organization of Soviet Russia.

There are 11 trusts of the first two denominations in stone industry. The timber industry is represented by 5 trusts all of the middling type. Coal mining, especially in the field of anthracite, accounts for 1 large and 3 middling trusts. In the mining of ores, likewise, the economic morphology of Soviet Russia exhibits 1 large and 3 middling trusts.

1. The Sugar Trust of Russia.

The entire sugar industry of Russia is governed by one industrial combine known as the Sacharo Trust, Moscow. It works at a capital of 348,000,000 tch-rubles (1 tch. ruble=25 pence). It possesses (1) 197 beet sugar factories, (2) nationalized lands measuring 1,000,000 dessiatins, (3) 33 sugar refining works, (4) 15 seed selection stations. There are 17 regional offices and 142 sales-agencies in its administration.

In 1924-25 the employment was as follows:-

- 1. Sugar factories— 84,965 hands
- 2. Refining mills— 26,137 ,,

,,

2. Trust of Machine-Builders.

The Maschins Trust of Moscow has amalgamated the following machine-building concerns:—

(1) Parostroi, (2) Krasny Proletaris, (3) Krasnaia Presnia, (4) Serpi Molot, (5) Kotloapparat, (6) Melnitchno-Tkatskoe Oborudovanie, (7) Press, (8) Boretz, (9) Hydrophil, (10) Pirwitz, (11) Krasny Stampovstchik, (12) Klimovsk.

In 1924-25 the total output of the trust amounted to 30,000,000 tch-rubles. And it comprised combustion engines, Diesel engines, steam-boilers, water-turbines, centrifugal pumps, fire engines, machines for textile industry, rail-road bridge girders, installations for oil, starch and molasses factories, refrigerators, enamelled and tin goods, steel and brass castings, etc.

3. State-Trusts in Metallurgy, Leather and Wood-work.

A metallurgical amalgamation is known as the Tremass of Leningrad. It is a state-trust combining four works, namely:—

- 1. Mechanical and Stamping Works.
- 2. Gudravlika.
- 3. Copper Works Tchasovoi Revolutsii.
- 4. Wassiliostrovsk Wire-nail Works.

All these were formerly private factories of St. Petersburg (Leningrad) but have been nationalized in 1922. The trust manufactures and sells hardware for general use as well as produces technical goods for sanitary and hygienic purposes. The average employment for the first half of 1924-25 was about 997, and the value of goods issued during the same period 3,096,000 tch-rubles. The capital is worth 5,695,584 rubles

The Leningrad-koshtrust is a state leather-trust with headquarters at Leningrad. It was established in November 1921. Its manufactures constitute 20% of the leather products and 35 per cent. of the shoes produced in Russia.

The trust comprises the following eight concerns: (1) "Skorohod" tannery and leather-factory, (2) "Proletarskaja Pobeda" shoe-factory, (3) "Iljitcheff" shoe-factory, (4) "Radischtscheff" tannery, (5) "Marxist" leather-factory, (6) "Komintern" leather factory, (7) "Bebel" works for the manufacture of leather bags and trunks, (8) "Oktjabrskaja Revoluziā" works for the manufacture of nails. The names of the factories bear revolutionary associations. All the eight works, however, have been coming down from Czarist times and were named differently previous to the establishment of the "October regime."

The tanneries "Radischtscheff" and "Marxist" manufacture also big leather straps and other kinds of finished leather goods for technical and factory purposes. Saddles, and other outfit for horses, harness, etc., are moreover manufactured in these works.

The trusts commands an employment of some 8,000 working-men and other employees. The total capital is 14,308,000 teherwonetz rubles. One teherwonetz is equal to £1-1s.-1 $\frac{3}{4}d$., nearly 254 pence. And since 1 tch=10 tch-rubles, 1 tch-ruble enearly 25 pence. In English money the value of the Russian leather-trust is £1,490,416.

The wood working mills of Leningrad and its environs have been unified by the Drevtrust. The organisation supplies (1) beams, roughly sawn timber, etc., (2) planed timber, grooves, plants, girders, door-lining, etc., (3) window-frames, doors, cases, (4) boxes, and trunks, (5) office-furniture, tables, desks, chairs, book-cases, shelves, (6) furniture for hospitals, sanitariums, schools, etc., (7) cheap house-hold furniture of all kinds. Seventeen mills are members of the trust, which is a state institution.

4. The Electro-technical and Coloured Metal Trusts of Moscow.

A state-trust with headquarters at Moscow and agencies in all important towns has concentrated the electro-technical industry of Russia. The amalgamation consists of the following groups of members:—

- 1. Electro-mechanical works in Moscow, Leningrad, Kharkoff and the Oural.
 - 2. Kablesworks in Moscow and Leningrad.
 - 3. Lamp-works in Moscow and Leningrad.
 - 4. Glass-works in Moscow and Leningrad.
- 5. Insulator works in Moscow, Leningrad, and Werbilki (North Railway).
- 6. Light carbon works in Koudinovo (Nijni Novogorod Railway).
 - 7. Glowlamp fitting works in Moscow.

The coloured metal industry represented by six factories has been unified in the Gospromptsvetmet. It is a state-trust with headquarters at Moscow operating at a capital of 50,664,808 tch-rubles.

The following works have been amalgamated into this trust:—

- 1. Coloured Metal works at Koltchougin.
- 2. Copper Works Krasny Vyborjets in Leningrad.
- 3. Metal-lamp Works in Moscow.
- 4. Electrolytic Refining Works in Moscow.
- 5. Refining Works at Podolsk.
- 6. Alaghir Works.

The production represents (1) household articles such as samovars (tea-boiling machines), primus cookers, aluminium jugs, copper weights, etc., (2) electro-technical goods, such as wire, trolley cables, telephone bronze cables, aluminium arcs for street cars, lighting and telephone cords, etc., (3) industrial and

railway goods such as sheets, circles, pipes, rivets, electrolytic copper, locomotives, fire boxes, etc.

In 1924-25 the trust produced 26,925,000 kilograms of copper, bronze, aluminium, German silver, brass and other "coloured metal" stuff. The worth was 43,000,000 tch-rubles.

5. Two Flax-trusts.

The flax-trust known as the Kostroma-Jaroslav United Flax-factories was established in 1921 with headquarters at Moscow. The works belonging to this union may be classified as follows:—8 flax-spinning and weaving factories, 1 cotton-spinning and weaving factory, and 1 cotton-weaving factory. These ten factories offer employment to 30,930 working men of all grades.

The manufactures for 1924-25 comprise the following items:—

Flax-yarn—716,000 poods (1 pood=32.8 lbs.).

Cotton-yarn—115,000 poods.

Textile fabric-40,445,000 square metres.

Fire-pipes—319,000 length metres.

Wick and ribbon—11,100,000 length metres.

This production embodies 37% of the total flax-industry of Russia. The total capital is estimated at about 57,000,000 tch-rubles (1 tch-ruble=25 pence).

There is another flax-trust, the Viasniki-Mourom Unified Flax-factories. It was established after the one just described and is known as the "second flax-administration." Its head-quarters are likewise located at Moscow.

It comprises 10 spinning and weaving factories, 4 flax-spinning factories and 6 flax-weaving factories, These twenty works have a combined employment roll of 19,087 hands and command capital to the value 31,000,000 tch-rubles.

In 1924-25 this second flax-administration was responsible for the following amounts of manufacture:—

Flax-yarn—810,200 poods (1 pood=32.8 lb.).

Textile fabrics—38,119,000 sq. metres.

Bags-15,787,000 sq. metres.

This constituted about 27% of the total flax-production of the year.

6. Trusts with Industrial and Commercial Functions.

The Centrobumtrust of Moscow is the central trust of cellulose and paper industry. Imports constitute one of its functions and comprise compressed paper, card board, lignine, cellulose, brimstone, aniline dyes, nets and cloth paper mills as well as the accessories of paper and cellulose-industry. The more important function consists in the manufacture of paper and card board of diverse kinds, cellulose, lignine, etc.

The members of the trust, belonging as they do to different districts, are as follows:—

- 1. Okoulovo Paper Mills (Novogorod).
- 2. Kammenski Paper Mills (Tver).
- 3. Troitsko-Kondroffski Paper Mills (Kalouga).
- 4. Poloniana-Savodski Paper Mills (Kalouga).
- 5. Sokol (Vologda).
- 6. Sukhonoffski Cellulose Work (Vologda).
- 7. Penza Factory (Penza).
- 8. Volga Factories (N. Novogorod).

The Maltcombinat is a state-trust with both industrial and commercial functions. It was established in 1923, but many of the works belong to the pre-Revolution days. In 1924-25 on the industrial side the trust manufactured goods worth 7,538,920 tch-rubles, and on the commercial side its transactions were valued at 15,801,447 tch-rubles.

The industrial side of the trust represents five different lines of activity. These may be grouped in the following order:—

- I. Foundries and Engineering Works;
- 1. Ludidoff Machine-works and iron foundry with annexed saw-yard. Manufactures: cars, radiators, tubes, kettles for central heating, meteor-stoves, canalization tubes, enamelled household implements, etc.
- 2. Pessotochin Iron foundry: enamelled ware, iron ware, cast stoves, etc.
 - 3. Soucrimil Iron foundry: iron ware, cast stoves, etc.
 - 4. Radetski Waggon-works.
- 5. Cement-factory with annexed saw-yards: Portland cement, Pouzzoulan-cement.
 - 6. Briansk Factory: slate and asbestos veneering planks.
 - II. Glass and Pottery Works:
- 1. Bitasheff Glass-works with annexed saw-yard: half-white glass.
- 2. Tcherniatine Glass-works: half-white glass and glass for photographical purposes.
 - 3. Ivortski Glass-works: thick window-glass.
- 4. Pessotchin Fayence-works: household crockery, sanitary porcelain.
 - 5. Diadkov Crystall-works: household and industrial crystal.
- III. Light Railways between Briansk and Paliki with a series of branches leading to different factories: 300 versts.
 - IV. Mining Works: coal, iron, clay, sand and chalk-pits.
 - V. Houses and trading offices.

7. Commercial Trusts for Textiles and Metals.

A commercial as distinguished from an industrial trust is the Textile Syndicate of the U. R. S. S. with head quarters at Moscow. It functions (1) as the central trading organization of the Russian textile factories, and (2) as the supplier of raw materials, chemicals and machineries, etc., to the members.

There are altogether 342 factories belonging to the Syndicate and their total employment is registered at 562,400. The works may be classified as follows:—

146	cotton	$_{ m mills}$	•••	410,600	workmen
86	woollen	,,	•••	59,800	,,
5 6	linen	,,	• • •	67,800	,,
20	silk	,,	•••	3,000	,,
23	hemp	,,	•••	12,000	,,
11	knitting	,,	•••	9,200	,,

In 1924-25 the turnover of the Syndicate amounted to 549,300,000 tch-rubles (1 tch-ruble=25 pence). It has 146 centres in Russia and is represented by agencies at Riga, Berlin, Paris, London and New York.

Like the Textile Syndicate, the Metal Syndicate also is a purely commercial organization. Its capital is worth 5,000,000 rubles and its business growth is indicated below:—

1922-23	6,000,000	tch-rubles
1923-24	19,000,000	,,
1924-25	67,000,000	,,

The Syndicate is the sales-bureau of 17 metal trusts commanding factories in Central and North-western Russia. It handles the marketing of machinery and equipment, hardware goods and black metal through 64 warehouses located in different parts of the country. 60 per cent. of its sales went to the state concerns, 20 per cent. to the co-operative organizations and 4 per cent. to private dealers, the rest being disposed of in retail at the Syndicate's stores.

Another commercial trust is the Gomsy of Moscow. It is a state institution and is the central organization for the sale of tools and machines constructed in the locomotive, car and ship-building works as well as mechanical and metallurgical mills of the state. The following works are its members:—(1) Krasnoye Sormovo, (2) Kolomennky, (3) Profintern, (4) Tverskoi, (5) Instrumentany, (6) Pervomaiski, (7) Prioksky Mining Mills, (8) Moscow Brake Works and (9) Jaroslavsky Mill.

THE CHEMICAL COMBINES OF FRANCE AND GREAT BRITAIN.

In the first quarter of the present year a Syndicate known as the Union Chimique has been established in France.¹ This may be described as a chemical trust which brings together under one organization all the leading French enterprises in the chemical line.

Among the more prominent concerns belonging to this Union may be mentioned the following six. First in point of financial strength is the Pechiney Co. with 208,000,000 francs as share capital. The second in importance is the Etablissement Kuhlmann commanding a capital of 190,000,000 francs. The Saint Gobian Co. possesses 161,000,000 francs as capital. The capital power of Societe d' Electrochimie is represented by 80,000,000 francs. The next two are known as Air Liquide Co. and Pouleme Freres each with 60,000,000 francs as capital. The combined share capital of all the industries in the Union Chimique is valued at 976,500,000 francs. At the rate of nearly 125 francs to the £ in February 1927, the total financial strength of the French chemical trust is worth some £7,810,000.

The chief object of the Union is to present a united front in regard to all foreign transactions. No sales or purchases abroad and no contracts with any party in a foreign country are to be undertaken by any of the members independently. But otherwise each is to possess perfect freedom. The Union

¹ Der deutsche Oekonomist (Berlin), 24 March, 1927.

is to exercise no control over the internal administration, technical or organisational, of any of the companies. Thus considered, the syndicate is to be regarded more as a loose federation or community of interests in regard to certain specified purposes than as a trust in the strictest sense of the term. It should be more appropriately placed in the class of cartels.

The Union Chimique is but a pocket syndicate compared to the huge organization in the chemical line recently established in Great Britain. It is called the "Imperial Chemical Industries." This combine comprises four of the greatest British chemical firms, each of which is, besides, a syndicate of firms. These four are (1) Brunner Mond & Co., (2) Nobel Industries, (3) British Dyestuffs Corporation and (4) United Alkali Co.

The total financial strength of this British trust is estimated at £65,000,000, *i.e.*, about $8\frac{1}{2}$ times the capital of the French Institution. It may be of interest to note in India that Lord Reading is one of the thirteen directors governing the Imperial Chemical Industries.

No British Trusts in Coal, Steel and Shipbuilding.

The coal industry of Great Britain is not yet centralized. Production on a large scale is not unknown in coal-mining but competition between the concerns is still the ruling factor in price-politics. Monopolistic trustification seems for the present to be unthinkable. But the official coal-commission has not failed to make it clear that amalgamations and vertical unifications should take place in the industry as soon as possible.

In the iron and steel industry also Great Britain has indeed very many big concerns. These are powerful enough in certain markets and for certain qualities of production. But real trust-like organizations of the American and German types are yet to come. It is still possible for single foundries such as buy their ores in the open market or from abroad to compete with

large enterprises, individual or combined, and preserve their existence. And this is perhaps one reason why the English steel industry is not yet in a position to join the continental cartel.

The shipbuilding industry of Great Britain is likewise free from monopolistic control. The name of docks and dockyards is legion and they flourish alongside of one another in almost unrestricted competition.

BRITISH TRUSTS OLD AND NEW.

Then, again, British economic theory is, in general, more or less anti-trust. The leading economists fight as a rule shy of the word trust and choose to employ the terms, amalgamation, combination, constructive co-operation, etc., instead. On the question of "individualism" vs. the so-called "restraint of trade" they are used to casting their votes in favour of the former and believing that monopolies lead to the heightening of prices. In the estimation of the Review of Barclay's Bank Ltd. (November 1926) combinations are almost identical in effect with the protective tariff and similar limitations. And they are said to reduce the volume of transactions in the long run.

From all these circumstances, practical and speculative, one might be led to believe that trusts as monopolistic forms of business economy have failed to strike their roots in British industry and commerce. But such a notion would be thoroughly misleading.

The Inversek Paper Company is a British institution, at once manufacturing and commercial, the like of which, so far as the extent of its vertical concentration is concerned, is hardly to be found even in the United States of America and Germany. 1 Its report for 1925-1926 published in the

¹ Der Deutsche Volkswirt, Berlin, 4 Feb., 1927.

Economist of 23rd October, 1926, describes how the company has recently swallowed up a host of similar concerns. It has established a combine known as the "Illustrated Newspaper Ltd.," in which have merged some of the most influential and successful illustrated journals and magazines of Great Britain. Some of the chemical factories and cellulose works have been bought out by the company. The Koholyt Gesellschaft of Germany is one of them. To-day it ranks as the world's foremost trust of paper-manufacturers and publishers.

Take next the Imperial Tobacco Company. It is a powerful trust comparable only to its American competitors with which it has succeeded in entering into a pool as regards the spheres of influence and control in the world-market. It possesses its own plantations in Kentucky in the U.S.A. and controls a large percentage of the tobacco and cigarette stores in the English-speaking world. The monopoly enjoyed by the company is almost dictatorial in regard to the prices. And its financial strength may be gauged from the fact that in 1925 there was a net income of £888,000,000, and this yielded a dividend of 24 per cent. on the share-capital.

Then there is the huge Whisky Trust. Its origins are to be found in the Distillers Company, a trust established in 1877 out of seven Scottish firms. The process of concentration and amalgamation has been going on for half a century. And in 1926 the three great whisky-concerns, Dewar, Buchanan and Walker, have been fused with the Distillers Co.

In 1890 the United Alkali Co. was established as the result of the fusion of 48 soda-works. The Brunner Mond & Co., is another trust of long standing. These two together with the British Dyestuffs Corporation and the Nobel Co., each of which is, besides, a combination of several firms, have recently been amalgamated, as noted above, into the mighty Imperial Chemical Industries Ltd. (1926).

The British textile industry can exhibit several trusts of world-wide reputation. The most well-known perhaps are (1)

the Coats Co., famous for its yarns and (2) Fine Cotton Spinners and Doublers. The bleaching and dyeing works are similarly organized into several powerful combinations. The Calico Printers' trusts are likewise firmly established. It need be observed, however, that ordinary spinners and weavers, whether in the cotton or in the woollen industry, have not succeeded in forming any trusts as yet.

These are all old concerns, *i.e.*, pre-war by all means and may sometimes be traced back to the nineteenth century, during which the beginnings of trustification are to be found in America as in Germany. In other words, trusts are as good English phenomena as Continental and American.

To the same type of monopolistic business organisation belong (1) the salt union, (2) the carpet trust, (3) the cable union, (4) the portland cement, (5) the match industry, (6) the bottle industry, and (7) the Lever soap works, etc. The Petroleum Companies have likewise been trustified Like the Standard Oil Company of New York the British concerns, e.g., the Anglo-Persian Oil Company, have been monopolizing not only the markets for the consumption of oil but also the establishment of refineries as well as the manufacture of oil tanks and supply of oil-transports.

One of the latest British trusts,—and this a very successful one,—is to be found in the artificial silk industry. The Courtauld Co., was established before the war but has since then bought the patents of the British Rayon Manufacturing Co., and has grown into the most powerful firm in Great Britain. In 1925 with a production of 30,000,000 lbs. England was only second to the U.S. in the manufacture of artificial silk. The Courtauld Trust possesses the lion's share in this British industry.

It is clear that monopolies or semi-monopolistic organizations of the trust or cartel type are very marked features of business economy in England. Indeed the Report of the Committee on Trusts, published in 1924, leaves no doubt on the point. We are told that there are at least 500 mighty combinations that influence not only the character of the business but the price-levels as well. The Report says further that the tendency to form amalgamations and fusions is steadily on the increase.

GERMAN BUSINESS PSYCHOLOGY TO-DAY.

In Germany's economic life the concentration or amalgamation movement has been proceeding apace. Reports about "fusion," combination or constructive co-operation of some sort or other form the special features of the industrial and commercial news coming from Germany. To-day the fusion is reported from the "heavy industry" (iron and steel works), to-morrow from the field of chemical works. Even hotels and restaurants are coming within the sweep of attempts at or achievements in trustification. The dimensions of this German amalgamation movement would be stupefying not only to us in India but to many of the less advanced nations in Europe and America as well. To the Germans themselves, however, huge cartels or trusts have become almost natural or normal phenomena in business organization. But even in Germany a few years ago, say, previous to the world war,1 giant industrial or commercial formations such as are coming into prominence to-day would have appeared almost monstrous aberrations. Trustification, so novel as it is, has been passing through different stages.

In those days the freedom of one enterprise from control by others was regarded as the ideal form of economic activity. Any combinations, whether industrial or commercial, were likely to be treated as out of the way, as rather contrary to the spirit of self-sufficiency and *swaraj*. But in the course of a generation or so German business psychology has been settling down

¹ Of: "The Stinnes Complex in German Industry" in the present author's Economic Decempent (1926).

to the notion that such absorptions, aggregations or conglomerations represent but the "next stage" in the evolution of economic morphology.

This idea that trustification or cartellization is but an inevitable, a natural and necessary phase of structural development in industrial and commercial life is no mere item in the doctrine of economic determinism such as inspires the writings of a class of theorists. The new mentality has got firmly entrenched in the various occupational groups and practical business circles of Germany. The Stock Exchanges are already solid embodiments of this idea in so far as they make it a point to propagate and popularise the trust-formations and attempts at fusion by sympathetic heightening of the share-values. company-promoters and entrepreneurs may be described as being almost infatuated with amalgamations and are the staunchest apostles of the trust-idea. They are prepared to carry it to almost any length without waiting to inquire whether the size of giant structures is limited ultimately by the personal element in economic ventures. Curiously enough, even the workingmen have grown into powerful advocates of the amalgamation movement, although it is self-evident that every trustification is almost invariably attended with the discharge of hands and hence unemployment.

RATIONALIZATION IN MANUFACTURE.

The reasons for the wide popularity of trusts are not far to seek. In Germany since the war there is one idea that has been governing the thoughts of almost every economic theorist and the activities of nearly every business man. And that is Rationalisierung, i.e., rationalization of the processes of production, transportation and transfer of goods. Now this rationalization of economic life can be achieved only under conditions of

¹ Deutsche Allgemeine Zeitung, Oct,-Dec., 1926, Berlin.

fusion, amalgamation, or trustification. No trusts, no rationalization,—trusts constitute the very precondition and basis of every rationalizing attempt in industry and trade. This is the slogan that prevails in the German economic world.

. How do trustification and rationalization go hand in hand? The explanation is simple. In the first place, no rationalization is possible in any sphere of economic activity, say, manufacture of goods, unless there is a unified plan in regard to the entire branch of production concerned. It is only when the whole branch of manufacture, i.e., the entire line of particular commodities is controlled by a single organization of brain, brawn and bullion, that we can speak of a uniformity in the administration of production. This implies automatically that all the different firms engaged in the manufacture of the goods in question belong to one single management. And this is nothing but industrial combination or trustification.

The rationalization such as can be accomplished by trusts makes itself felt in two ways. First, in so far as the production of different types or kinds of goods is an absolute necessity, the trust is in a position to distribute the work among the several factories in its sweep. Each one of these firms is not then compelled to attempt producing all the different types but may be allowed to devote itself to the manufacture of just those types to which it is specially adapted.

Secondly, under the conditions of a trust supervising and controlling the production of numerous factories it is possible to reduce the very number of types or kinds of goods. As long as every factory is independent and tries to compete with other factories in the same line of manufacture, the market is over-burdened with a superfluous and unnecessary multiplicity of types between which the difference is hardly noticeable. The "freedom" generates plenty of economic wastes, whereas, on the contrary, it is the function of an all-commanding trust to avoid and prevent those wastes due to competition and emancipate the market from the tyranny of unnecessarily diverse types.

RATIONALIZATION IN BANKING AND WHOLESALE AND RETAIL TRADE.

Rationalization has the same end in view in the administration of banks as in that of industry. The fundamental object is to remove the superfluous and simplify the most essential requirements in order that the expenses may be reduced to a minimum. And as in the case of industry, in the case of banks also the net result that one seeks to achieve is the supply of goods, in the present instance, money, to the customers, i.e., credit-seekers at as cheap a rate as possible.

The introduction of machines in the routine work of banks is a technical item calculated automatically to reduce the numerical strength of the office apparatus. Similarly, much of the duplication or multiplication of forms necessary in bank business can be avoided if a number of banks decide to amalgamate themselves into a single institution. But the personal element in bank-administration is so important that the amalgamation movement encounters a natural check.

While banking admits of a great degree of rationalization such as is most prominent in industry, the possibilities of commercial undertakings in this direction, even although they be of large dimensions, are rather limited. The chief improvements in the field of wholesale business lie in the direction of a better organization of human labour. Another direction in which big commerce can advance consists in the establishment of common purchasing organizations. The importance of large storages and warehouses has been making itself prominent among all wholesalers.

Ordinary, i.e., retail store-keeping also admits of a great deal of rationalization and this is apparent in buying, warehousing and selling. The most important innovation of recent times

¹ Industrie-und-Handelszeitung, Berlin, January, 1927; Technik und Wirtschaft, Dec., 1926 (article on Neue Handelsformen im Auslande) and January, 1927 (article on Normung im Einzelhandel).

consists in the placing of standardized goods on the market. To-day, nobody as purchaser is compelled to possess a knowledge of hundreds of goods or of the varied conditions regarding quality, price, etc., obtaining in the market. Comparatively unskilled hands can likewise be entrusted with the storing and selling of goods.

There has besides been a movement towards the concentration of warehouses and the union of purchasers in specialized fields. The result is embodied in a better organization of the buying process.

Warehousing has become simplified on account of the changes in industrial methods. The factories are now turning out a smaller number of typical commodities than before. Ordinary stores are not therefore compelled to carry widely varied lines of goods of the same sort. The branch offices of retail stores in different parts of the city or district are some of the new phenomena in the trading world. They serve to expand the business of the company without in any way considerably adding to the cost of warehousing. They are therefore playing a part in the rationalization process.

In the field of sales, rationalization has been manifesting itself in the establishment of stores which offer goods at some fixed price-units, e.g., the 5 cents, 10 cents stores of the U.S. The Woolworth Stores of New York have been winning imitations on the continent. The Tietz stores of Cologne are introducing American methods of retailing in Germany.

TRUSTS AND CRISES.

In the second place, the intimate connection between trustification and rationalization is brought home to us in the problems connected with crisis and the so-called economic cycles. Let us begin with the "slump" phenomena. Suppose that in a certain line of goods the market conditions happen to be so bad that all the factories interested in its production are compelled

ndependent of, and are at liberty to compete with, one another the result of such a depression can but be uniformly bad to all of them. But should all the factories engaged in the manufacture of this particular kind of goods happen to be governed by one and the same industrial organization, it might be deemed expedient and "rational" to close one or two works down and work the rest full time. The supply might then be brought down to the reduced requirements of the market, and the trust being a powerful institution, it might shoulder the losses, should there be any on account of the closing down, without much difficulty.

Let us now take the other side, the "boom" aspects of an economic crisis. Under conditions of atomistic individualism and uncontrolled freedom of enterprise each one of the firms in a particular line of production would consider itself justified in recklessly going in for schemes of expansion. The capitalists, the engineers and the merchants,—all would vie with one another each in his own sphere, to take advantage of the upward swing. They would be virtually ignorant of one another's plans and would hardly wait to consider whether the market is wide enough for the ambitious projects of so many competitors. Legion of companies would be floated and factories would spring up like mushrooms,—all leading cumulatively to overproduction. Similar conditions have not been unknown even in India in our recent experience.

The supply of goods in abnormal proportions much higher than the market can absorb is likely to be a natural phenomenon when the competition is unbridled and limited solely by the independent ambitions of self-determined firms. If this phenomenon is to be curbed at all, or at any rate harnessed within narrow bounds, it can be accomplished mainly under such rational methods as a trust can introduce by curtailing the freedom of its members and commanding them to exercise self-control in regard to the amount of production.

WORKING MEN AND TRUSTS.

What, then, are the motives of workingmen in actively sympathizing with trustifications and rationalization? It is necessary to remember, at the outset, that the working men of Germany as in other advanced countries of the West are more or less well read in socialistic literature. Socialism of one form or another is the very atmosphere in which thay live, move and have their being. The inspiration and guidance for all their political and other public activities they derive from such newspapers and books as represent in the main the views of thinkers who, if not registered socialists, are at any rate theorists with socialist bias.

Now the socialistic economics and political theories of the last two generations have succeeded in establishing an ideological tradition among the masses. The content of that tradition is peculiarly adapted to lead the working men to believe, as a matter of course, that the forms of economic organization succeed one another in an historical series. If to-day giant structures are in evidence swallowing up the smaller and middling formations and dictating terms to each one of their members, it is but a process in the natural evolution of things. Trusts, in other words, are inevitable. The working men, true to their socialistic inspiration and world-view, are therefore by their psychological associations naturally prepared to accept the growing trust-organizations as but the latest embodiments of the human spirit in economic endeavour.

The working men are, however, not blind to the realities of the situation, their historic determinism and their socialistic interpretation of economic evolution notwithstanding. They are painfully observing how trustification and unemployment have been going together. In their estimation rationalization is but a synonym for the discharge of hands. But yet they are educated enough to believe that this discharge of hands is but a temporary phenomenon. And they are inclined to hope that as

soon as the trusts have been able to accomplish the necessary rationalization the disadvantage at present experienced by labour will disappear, nay, that the wages will tend to rise.

FINANCIAL NECESSITY AS MOTHER OF TRUSTS.

The dotrine of the "inevitableness" of trusts such as is taught by socialist economics belongs no longer to the region of mere abstract speculations. The conjuncture of circumstances in the social and economic life of Germany to-day has furnished a surprisingly strong verification of the hypothesis which speculative theory in the field of economic history attempted to bring forward. Trusts have actually become "inevitable" on account of, among other things, the financial conditions of the post-war world. It is sheer necessity, the pressing need of the hour, that as in the case of other inventions and improvisations has compelled trusts also to make their appearance on a huge scale and all along the line.

The recent trusts of Germany are mostly the offsprings of financial necessity. Firms have been forced to renounce their freedom and self-determination and seek the assistance and co-operation of their rivals simply because they felt that absolute independence would mean a wholesale ruin to their interests. Unless they were prepared to sacrifice their freedom and merge their existence in the life of an all-powerful combination they would have to choose the only other alternative, namely, a disgraceful retreat from the economic arena.

It is mainly the problem of working capital which explains the urge behind the trustification involved in the steel-complex, the Vereinigte Stahlwerke. The great combine of Upper Silesia, the Montan-trust, owes its recent amalgamation to the same necessity. The Photofusion built up in the chemical industries connected with photography has to thank the financial need for its present structural growth. Of late the smaller chemical works had been to a dangerous extent cornered by the hig dye

industry association. In order to meet this danger they have found it necessary to club their capital and other resources and place themselves under the common surveillance of a great chemical union. In the wagon industry, likewise, it is the absence of sufficient capital in single firms that has been inducing them to attempt pooling their interests and organize an almighty trust to look after them all.

These are instances of absolutely independent concerns that because of financial weakness have seen their way to seek safety and prosperity in combinations. Financial necessity has been the mother of trusts in other ways as well. In Germany as in other adult industrial countries, for some long time, there have been in operation certain types of business combination which may be described not as full-fledged trusts but as half-way houses, so to say, to trusts. To these "intermediate" forms of combinational economy belongs the system of different firms buying one another's shares. Then there are many concerns which co-operate with one another in certain technical questions. To this extent there is an amalgamation, but it does not go far enough. There is a third class of combinations which do not exceed the rather modest limits of a general Interessengemeinschaft (community of interests). It is the pressure of financial considerations that has prevailed upon such quarter-trusts or half-trusts to move towards a 100 per cent. fusion, i.e., amalgamation of the full trust type. The aniline concerns have, owing to these conditions, found it paying to deliberately leave the "intermediate stage" behind and rise up to the highest known type of combination in business morphology. Another group of semi-trusts which have been forced by considerations of capital to adopt complete trustification is to be found in the linoleum industry.

TRUSTS AND FOREIGN CAPITAL.

The financial necessity has assumed an exceptional character in Germany in recent years. And this has contributed its

quota in no small measure to the transformation of the organizational forms in business enterprise. Some of the most prominent German concerns have to depend for capital on loans in the international money-market.

This dependence on foreign capital may to a certain extent indicate the economic weakness of Germany. But, on the other hand, the very fact that an enterprise is not compelled to look solely to the home-market for its finance but is free to exploit the entire world for the supply of working capital indicates on the other hand at least two things. First, it is an evidence of the credit not only of the concern itself but of Germany's government and people abroad as well. In the second place, the possibility of getting loans in foreign countries serves almost as a regular and constant assurance of expansion which the enterprise can expect in a reasonable manner.

Now international finance can be approached only for big figures. It is only when one is out tapping the loan market for millions of dollars that American "individual bankers" are likely to get interested in the "deals." Naturally, therefore, as a preparation for floating loans on the world-market German concerns have found it a business-like proposition to merge their individualities in a mammoth enterprise of dimensions such as are likely to be respected by creditors. Loan-hunting in foreign countries has thus been a fruitful source of concentration in industrial enterprise at home.

PRESSURE FROM THE HOME MONEY MARKET.

The exigencies of foreign capital have not, however, been the sole financial forces in the urge behind trustification in Germany. The internal money market also has no less directly contributed a great deal to the recent amalgamation movements in industry. German banks do not proceed to accommodate a concern simply because it is German swadeshi. They make distinctions between larger and smaller enterprises. The word

"larger" implies automatically those concerns which have command over considerable amounts of capital and are therefore likely to be successful enough in the struggle for existence. And in the estimation of banks the smaller enterprises stand as a rule for weaker institutions with necessarily lower power of resistance. The prejudices of banks against smaller enterprises have induced amongst these latter, as a measure of self-defence, a tendency to develop their vital force by combinations.

The impact of Stock Exchange operations on the form of business organization has likewise tended in the same direction. The chances for the sale of shares are very limited when smaller enterprises are in question. The market rejects almost spontaneously those shares which are issued by anything but big concerns. The discount charged in these instances in order to place the shares on the market is rather heavy. And it so happens that even when the dividends and chances of dividends are identical, no matter whether the company be large or small, it is the larger that commands a higher share-value on the exchange. The "fittest to survive" under such conditions of the money-market are then the companies that are the biggest in dimensions or command the control over a large number of concerns.

CARTELS vs. TRUSTS IN PRICE-POLICY.

Trusts may have been inevitable as a natural phase in the evolution of economic morphology. But the dangers of trustification to the community are none the less natural. As would already have been clear, the formation of trusts is from one standpoint but a synonym for the annihilation of competition. And economically speaking, the extinction of competition is identical with the establishment of monopolies, whether under private auspices or under state or municipal control. The fundamental identity between trusts and monopolies ushers into existence a number of economic phenomena to which both the masses and the classes have equally to remain alive.

The most important of these phenomena belong to the region of prices and price-policies. But here it is necessary to make a distinction between the 100% trusts and the semi-trusts, quarter-trusts or half-way houses to trusts, which have been referred to above in another connection. These semi-trusts are known as cartels.

A cartel is a type of business organization in which the different member-concerns maintain their individuality and separate existence almost as the states in a federal union. But in a trust the different members do not enjoy the least autonomy or self-direction but become so many districts, so to say, of a centralized nation-state. A cartel is therefore invariably a more or less loose conglomeration of several concerns possessing different degrees of capital power, technical skill and mechanical up-to-dateness. Some of the partners are perhaps quite fit, but the others are heavy drags upon the federation. The manufactures of all these different institutions are naturally being produced under different conditions of industrial efficiency, in other words, varying levels of cost. This is tantamount to saying that the goods can be offered for sale at different prices by the different members of the "federation." But in so far as the cartel poses as a unified institution in regard to the market for goods it will have to offer them at one and the same price, no matter how different be the cost-levels.

What, then, is likely to be the natural price-policy of a cartel? It must attempt to protect the "least fit" member of the federation, i.e., take into consideration the most expensive cost-level in the entire organization while coming out to the market with its terms of sale. The more fit and efficient members cannot be allowed to have their lower cost-levels determine the price for the whole organization, because in that case there would be no meaning in the establishment of the cartel. It is the "weakest link in the chain" that would influence the character of the system. It is clear, therefore, that every cartel, in so far as it kills competition between the fit and the unfit and

compels the more efficient to be satisfied with the conditions imposed by the less efficient, is prejudicial to the interests of the community. The price-levels at which cartels can function are bound to be higher than under conditions of free competition.

The price-policy of a trust tends to follow altogether another contrary direction. Here the diversity of conditions prevailing within the federation of a cartel is unknown. The organization is uniformly governed in a trust by one centralized system of ideas. The trust does not tolerate the existence of weaker members by the side of the more powerful ones. It abolishes the "less paying" and the more expensive concerns and concentrates its energy solely on those that show signs of a vigorous existence. A homogeneous level of industrial efficiency regulating the conditions of production in the entire system of workshops and factories is the A. B. C. of a trust's business policy. Naturally, therefore, it is the best equipped, the most favourably placed, the strongest and the fittest, whose cost-levels determine the price at which the trust is in a position to offer the goods on sale.

The prices of trust-commodities tend consequently to be much lower than those of cartel-commodities. But all the same the danger from a monopoly such as a trust in reality is cannot be ignored. For, inspite of the natural possibility of offering goods at a comparatively low price-level a trust may choose to pursue an anti-social and despotic policy.

FEARS REGARDING THE NEXT STAGE.

The annihilation of competition in the industrial world such as is engendered by trusts has another social consequence on which the opponents of trusts in Germany as in Great Britain and America are never tired of harping. That is the problem of the next stage in economic evolution,—especially in regard to the question of appropriate technical personnel in the country and financial leadership among the people.

To-day, indeed, the very ambition of establishing a giant organization acts as a powerful spur on the ambitious youths who are entering the industrial world. The leaders of to-day have been proving themselves quite up to the heightened demands of engineering, chemistry and finance. But what about the next generation?

The social situation created by monopolistic giant-organizations known as trusts is leaving no chance for young ambitions to start a career of sturdy independence in the business world. The best talents are forced to find themselves as but so many hands or screws in a huge mechanism. To the men who are pioneering the mammoth concerns all the rising youths are but clerks and second fiddles. In all trust-lands, therefore, the anxiety of statesmen and social economists is finding expression in the movement to promote by every means all those cultural and technical agencies by which giant undertakings can become a second nature, so to say, to the growing heads and hands of the society. This is an aspect of futurism in applied sociology to which the advanced countries of the world are being forced to devote their scientific attention and patriotic imagination on account of the appearance of trusts. India's problems of the "next stage" lie, however, on a much lower and more modest level.

BENOYKUMAR SARKAR

THE CONCEPTION OF DIVINE PERSONALITY IN THE SĀNKHYA PHILOSOPHY

The essential characteristics of personality may be said to be two, or, rather, one, expressible in two forms; and they are: (1) Self-consciousness or consciousness of a centre of reference. and (2) a self-conscious centre of activity or effort, otherwise called Will. These are the general characteristics of all forms of personality. But self-consciousness is not a simple or undifferentiated unity of an essence or substance, but a complex or differentiated unity of a 'system' or 'world'-a unity-inmultiplicity; and such a unity is not perfect everywhere, it is so only in God. Thus, God being a perfect unity of self-consciousness. He may properly be called super-personal. When, on the other hand, we say that God is a perfectly unified centre of all activity or effort, we mean the same thing, only expressed in a different form. Or, in short, God is a perfect intellect and a perfect will. If these characteristics constitute the personality of God, does the Sankhya attribute the same characteristics to Him? If the answer is in the affirmative, then the Sankhya must be held to regard God as personal; and if, on the other hand, the answer is in the negative, then the Sankhya must be held to regard God as impersonal. Let us consider which one of these two views it really maintains as its own.

The Sānkhya defines Purusa in a general way. We should consider the definition very carefully. The Sānkhya Kārikā defines Purusa in this way: "The Manifested is caused, non-eternal, limited, changeful, multiform, dependent, attributive, conjunct (and) subordinate. The Unmanifested is the reverse" (Verse 10). "The Manifested has three constituents, and is indiscriminative, objective, generic, irrational and productive. So also is Nature. Soul is the reverse in these respects as in those" (Verse 11). From these two verses we

may gather the attributés of Purusa: He is uncaused, eternal, all-pervading, unchanging, one, independent, irresolvable, uncombined, and self-governed. In these respects he resembles Nature (Prakriti), but he has other attributes in which he differs from her. These adjectives are: destitute of the three gunas or constitutive factors, discriminative, subjective, specific or individual, rational, and unprolific. We should also read another verse along with these two, which is: "And from that contrariety (before specified) Soul is proved to be a witness, eternally free, neutral, perceiving, and inactive" (ibid, Verse 19). If we turn to the Sankhya Sutram we find the following attributes affirmed of Purusa: He is eternal, all-pervading (chap. 1, aph. 12), free from all association (ibid, aph. 15), eternally pure or unchangeable, eternally enlightened, and eternally released (ibid, aph. 19). The other treatises on the Sānkhya do not differ, even slightly, from the Sānkhya Kārikā with regard to the attributes of Purusa. We may, therefore, accept the list of attributes given by the latter as final.

Let us now examine carefully the above attributes. Purusa (the Absolute Self) is rational, intelligent, eternally enlightened: He is therefore a Self-conscious Being. But self-consciousness is not a bare unity, but a system or whole, or what is called a unity-in-multiplicity. Is Purusa a bare unity-a unity of a substance or the unity of a system? We should notice two other attributes; Purusa is called subject and Prakriti, object. Thus, Purusa is a self-conscious subject who has Prakriti as object. But this alone does not make Purusa a unity-in-multiplicity—a system or a world; Prakriti may be entirely distinct from, and outside of, Purusa: in that case, even though Purusa may know her, yet He will not have her included in His contents. Thus, Purusa will be bereft of all contents, Prakriti including, according to the Sankhya, all the contents which He may know, and reduced to be a bare unity. Therefore, to make Purusa a system, Prakriti must somehow be included in His contents. For that purpose the Sankhya adds another adjective, namely,

all-pervasive. Purusa is not only a Self-conscious Subject, but an all-pervading consciousness or subject, that is, He includes Prakriti in His nature. Thus, the real concrete Purusa is an all-pervading self-conscious system or world of which Prakriti is an element. He is, in other words, an organic synthesis of the Subject and the Object, of the Self and the Not-Self, or in short, a Subject-Object. Prakriti also is called all-pervading, but she is an all-pervading Object or Not-Self. If there be an all-pervading Subject, there must be also an all-pervading Object as its correlate. And the concrete Absolute is, thus, an organic synthesis. What would be the logical consequences of this conclusion we shall see in the sequel.

In the meantime we should clear up some difficulties. Purusa is also called free from all attachment or association, and eternally released. If Prakriti be included in the contents of Purusa, then how can these adjectives be applicable to Him? The answer is, that they are applicable, because they express only the particular aspect, not the whole nature of Purusa. Purusa is not only immanent in Prakriti, but also transcendent over her; a self-conscious subject not only includes its object, but also knows itself as distinct from and unexhausted in respect of its contents by, the latter, just, for instance, as our self includes all our ideas, feelings, willings, etc., and yet has not its contents exhausted by them: the former fact makes the subject immanent in, and the latter, transcendent over, the object. In so far as Purusa is transcendent, He is eternally released, i.e., not under the influence of Prakriti or the not-self, and also free from all attachment or association with her. It is only in the sense that the Absolute Purusa or Brahman is spoken of in the Sruti as. eternally released and free from all attachment with Prakriti. We should always bear in mind that the Sankhya definition of Purusa differs very little from that given in the Sruti, and those who are conversant with the latter know well that according to Nimvārka and Rāmānuja those attributes express only the transcendent aspect of Brahman or the Absolute Purusa. There

are other attributes of a similar nature, to wit, inactive, unchangeable, unprolific, and specific or individual, all of which express the transcendent aspect of Purusa. But in so far as the Absolute Purusa is immanent in Prakriti, He must possess also attributes of activity, changefulness, productivity and individual-. ity, these being the attributes of the latter in so far as she is manifested. Thus, the Absolute Purusa, in His wholeness, has two sets of attributes apparently opposite to each other, one set expressing His transcendent aspect, and the other, His immanent aspect. Or, we may express the whole fact in another way: As a whole or system, the Absolute Purusa is eternally free, because there is nothing outside Him which can bind Him: no doubt. He is bound by His contents (including Prakriti), but in that case, He is bound by what lie within Himself, by what is His own, that is to say, by Himself; but 'self-bound' is another name for 'free.' He is free from all attachment or association, for, there is nothing outside Him to be associated with. Inactive, because, being self-complete, He has no want or purpose to be fulfilled, or no end to be realised, therefore He has no desire or volition which is implied in all activity called voluntary and human. Unchangeable, because, there is nothing outside Him which can change His nature, so that as a whole, He is eternally unchanged. Unprolific, because all production implies change, but He is eternally complete. Specific or Individual, because a systematic whole is the true individual. But as the parts (i.e., all things and beings in the universe) are His own individualisations or differentiations, specific centres of His own activity, He possesses also the attributes of them. This fact is indicated by the phrase "Purusa is also analogous to the manifested in all those respects. " We may say that the Absolute is not only a perfect intellect, but also a perfect will, understanding by the latter a perfect spontaneity or a perfectly spontaneous active principle. In this sense the Absolute Purusa is active, but His activity does not imply any want, purpose, desire or volition; it is perfectly spontaneous. There are

other evidences in the Sānkhya itself which points to the fact that though Purusa and Prakriti are distinct, they are yet inseparable elements of One Absolute whole, or they are correlative aspects of a Higher Synthesis. Consider the following:

- (a) "The bondage of Purusa is not due to Prakriti, for she herself is under His control" (Sānkhya Sutram, Chap. I, 18). Here it is positively affirmed that Prakriti is not independent of Purusa, but entirely under His control. This assertion clearly shows that Purusa and Prakriti are not two independent realities, but the latter is an element of the former, for, of two things wholly independent and unrelated one cannot be entirely under the control of another.
- (b) "Without the conjunction of Prakriti (there can be) no conjunction of bondage in Purusa, who is, by nature, eternally pure, enlightened and unconfined ' (ibid, 19). the preceding aphorism it is asserted that Prakriti is not the direct cause of bondage; here it is said that the direct cause is her conjunction with Purusa. Now a question naturally suggests itself here: What is the cause of this conjunction between Purusa and Prakriti? Prakriti cannot be the cause of it, because, then, she will be the real cause of the bondage, which will be inconsistent with the previous assertion of her non-causality in this respect. Purusa also cannot be the cause, because, He being eternally free, cannot bind Himself. The Sankhya says the real cause is non-discrimination (aviveka) or the absence of any knowledge on the part of Purusa about his distinction from Prakriti. But this answer is absurd, because aviveka cannot pertain to him who is eternally enlightened. The true answer is, that the conjunction is eternal, and being eternal, it is eternally uncaused for what is eternal cannot have any cause. The conjunction is an ultimate fact, because Purusa and Prakriti are the inseparable elements of one whole, and co-exist from eternity; and therefore no question about its origin may arise. Thus, the conjunction being eternal, the bondage is also eternal, i.e., the

Absolute Purusa is eternally bound up with Prakriti. What is, then, release? As the bondage is the result of the identification of the Absolute Purusa with Prakriti, so is the release the result of the knowledge of the distinction between them. Release does not mean absolute separation between them, because that is impossible. The Sankhva does not entertain that view. Thus, the Absolute Purusa is both eternally bound up and eternally released. But he is bound up, not by anything external, but by what is internal, by His own elements, i.e., in so far as He is immanent in His elements. He identifies Himself with them: He is released in so far as He transcends the elements, i.e., knows Himself to be distinct from and unexhausted in respect of His contents by the elements. Therefore, the bondage and release of the Absolute Purusa are eternal—eternal correlative aspects of his nature. Or, in other words, His bondage is His freedom or release, because it is due to His own elements, and therefore, to His own Self. But bondage and release have a different meaning for the individual Purusas or men.

(c) "The agency or causality or Prakriti is due to her proximity to Isvara, as in the case of a loadstone "(ibid, 96). Examine this aphorism carefully. As a piece of iron derives its power of attraction by virtue of its proximity to a loadstone, so Prakriti derives her power of evolution by virtue of her proximity to Isvara. Here proximity is described as an essential condition of acquiring such a power. But the analogy is inadequate and misleading. Proximity is a kind of space-relation, which can subsist between a loadstone and iron, both of them being in space. But how can it subsist between Isvara and Prakriti? In the first place, proximity implies an interval, however small, between two things; but there cannot be any inter val or distance between Isvara and Prakriti, both of them being all-pervading and included in each other. In the second place, proximity is possible between things which are in space; but Isvara is admittedly above space (cf. aph. 13). Though, thus

the analogy is inappropriate, it contains one important truth: a piece of iron derives its power of attraction from a loadstone which must itself possess such a power before it can transfer it to the iron; similarly, Prakriti derives her power of evolution from Isvara who must Himself possess the power before it is transferred to Prakriti. This aphorism, thus, admits that the Absolute Purusa possesses the power of evolution, but instead of exercising it Himself He transfers it to Prakriti. A similar analogy is given in aphorism 99, which runs thus: actual causality is that of the Antah-karana, because it is lighted up by the Absolute Purusa, as in the case with the iron." Here, too, the point of the analogy is that Antah-karana (which is an evolute of Prakriti) derives its power of causation from Isvara, as the iron derives its power of burning from fire. and that, therefore, Isvara possesses the power of causality, as the fire does the power of burning. If the fire did not possess such a power, the iron also could not derive its power; similarly, if Isvara did not possess the power of causality, Antah-karana too could not derive its power of evolution. Consider also aphorism 164. Here, too, it is stated that the causality of Prakriti is derived from the influence or affection of Purusa, which is, again, due to her proximity to the self-conscious Principle. In Aphorism 51 of Chap. III, Prakriti is described as a bornslave to Purusa. There are numerous other aphorisms which point to the same fact, and need not be cited here.

Sometimes the word 'samyoga,' i.e., union or conjunction is used to express the relation between Purusa and Prakriti, by virtue of which the latter derives her power of evolution from Purusa. Thus, in the Sānkhya Kārikā we have the following: "In order that soul may contemplate Prakriti and be released, the union of the two, like that of the lame and the blind, takes place; (and) thence creation springs." (Verse 21.) It is curious that the Sānkhya Kārikā exclusively uses the word 'samyoga,' i.e., union, and the Sānkhya Pravachana Sutram, the word 'sānnidhya,' i.e., proximity, to indicate the relation.

But the former seems to be more appropriate than the latter for reasons stated above. However, we should notice one significant assertion in the verse cited above. Purusa is likened to a lame and Prakriti to a blind man, each of whom is altogether helpless without the other, for the purposes of evolution. But according to the Sānkhya the evolution is eternal, and therefore, the union of Purusa and Prakriti is also eternal; that is to say, Purusa and Prakriti are eternally united, and are, therefore, two eternally correlated aspects of a Higher Synthesis of one Absolute Whole. This point we have already proved from a different standpoint.

Before we conclude we should consider two attributes which are affirmed of both Purusa and Prakriti: they are 'independent' and 'self-governed.' (Vide Sānkhya Kārikā, vers. 10 and 11.) If Prakriti be independent and self-governed, how can she be inseparably related to Purusa? But we have, on the contrary. proved by citing numerous texts that they are inseparably related and two eternally correlated aspects of a higher Synthesis. How can we then reconcile these two seemingly contradictory assertions? If we think about the matter more closely we find that there is really no inconsistency. We can view the nature of Prakriti from two standpoints: Prakriti possesses some attributes in common with Purusa, and also possesses some other attributes in respect of which she differs from Him. Thus there are both identity and distinction between them. far as they are identical, they are inseparably related and therefore mutually supported or dependent; in so far as they are distinct and opposite, they are unrelated, and, therefore, mutually unsupported or independent. Thus, Prakriti is independent of Purusa from a particular standpoint, i.e., she is relatively independent, absolute independence being out of the question, for if she had really such an independence, she would fall outside Purusa, and thus limiting Him would make Him limited or finite. Two things absolutely independent and yet analogous and all-pervading, is a self-contradictory assertion. Prakriti

should, therefore, be called relatively independent. Again, Prakriti is also called self-governed; but 'self-governed' is the same as 'independent.' Thus Prakriti is only relatively self-governed. This disposes of the remaining difficulties.

It is no doubt true that the whole tenor of the Sānkhya Philosophy is to maximise the distinction or opposition, and to minimise the relation, between Purusa and Prakriti. To a less careful and intelligent reader the Sānkhya will appear to be a rigorously pluralistic system; but to a more careful and intelligent one it would appear that the Sānkhya as a whole is relatively pluralistic, teaching in many places, though less prominently, the unity of an Absolute Principle underlying the plurality.

Let us now turn to the Yoga Sutram, which is also called a Sānkhya Philosophy, to see what view it entertains with regard to the personality of God or Isvara. In Aphorisms 23-26 of the Samādhi Pāda, Patanjali has mainly discussed the nature of Isvara. We have mentioned before two essential characteristics which constitute the personality of Isvara, to wit, (a) perfect self-consciousness or a centre of reference of all objects, and (b) perfect will or a centre of activity, which is directly or indirectly the source of all activities in the world. Or, in other words, the personality of Isvara consists in a perfect intellect and a perfect spontaneity. I shall show that these two characteristics are to be described in the above aphorisms. In Aphorism 25 it is said that the seeds of omniscience has reached its · acme in Isvara, that is to say, He is described to be a perfect Intellect or a perfect Self-conscious Being. This inference is further confirmed by Aphorism 26, where Isvara is described to be the Original Preceptor of all other first-born preceptors, such as Brahmā, etc. The meaning of this is that Isvara is the original or ultimate source of all knowledge and truth. All these conclusively show that Isvara is a perfect self-conscious Being who is all-knowing and the ultimate source of all knowledge and truth. From this all-knowing character of Isvara follows His eternity and infinity, in as much as an all-knowing Being

cannot be limited in time and space; if He were so limited, He could not know all: He could not know what was outside and beyond the limit, and thus, could not be all-knower. Is He also a perfect will? In Aphorism 24 Isvara is described to be a particular Purusa, eternally free from pains, actions, fruits of actions, and desires arising from them. Here He is described as destitute of actions and desires, i.e., of will as ordinarily understood. Let us quote in extenso the comments made by Vyāsa on this aphorism: "Klesha (pains) are avidya (ignorance) and the rest; karmas (actions) are vices and virtues; vipāka is the fruits of actions; āsaya are desires following therefrom. Though they are qualities of the manah, yet, they are called the qualities of Purusa, because He is the enjoyer or knower of their fruits or consequences, just as the victory or defeat, which really belongs to the actual fighters, is usually ascribed to their master. That particular Purusa, who is free from the enjoyment of those fruits or consequences, is called Isvara. But there are many other Purusas called kevali who have also attained liberation called kaivalya; they have attained kaivalya by freeing themselves from three kinds of bondage. Isvara had no connexion with those three kinds of bondage in the past, nor will have any in the future: as by the liberation is understood innumerable previous bondages, so is not the case with Isvara. Or, as it will be possible for the absorbed into the Prakriti to have innumerable future bondages, so will not be the case with Isvara; for He is eternally free and eternally Isvara." Now, it is evident from the above that Isvara is eternally free from all vicious and virtuous actions, as well as from all desires arising from them: actions also imply desires as their motives; but desires and actions are essential characteristics of will: it therefore follows that Isvara has no will. But this is not the real inference for the following reasons: (a) In the Aphorism 25 it is positively asserted that Isvara shows kindness to the yogins by enabling them to attain samādhi and its fruits in a shorter time. Let us examine Vyāsa's comments

on it: "When a yogin worships Isvara with a special kind of devotion He does kind deeds to him at the moment of his meditation, and on account of that meditation the yogin's attainment of samadhi and its fruits becomes instantaneous." Consider then the Aphorism 26. In this aphorism it is clearly asserted that Isvara is the original preceptor of all the first-born preceptors, such as Brahmā and the rest, because He is above time, while they were born in time and had a limited longevity. It is manifest from this that Isvara is not absolutely inactive, for He is the ultimate instructor of all knowledge and truth. This fact is made more explicit and emphatic in the commentary of Vyāsa on the Aphorism 25. Vyāsa says: "Even though He (i.e., Isvara) has no want so far as He Himself is concerned, vet He has want in the shape of doing good to the jivas: the latter want is this: I shall liberate the entangled Purusas during the Kalpapralaya and the Mahāpralaya by means of instruction about knowledge and religion. It is likewise said: 'The prime-seer, (incarnated) through the medium of an artificial mind, (as) the mighty divine sage (Kapila), out of compassion (towards all entangled Purusas), revealed the (Sankhya) doctrine, in a systematic way, to Asuri, who desired to know them." From this it is conclusively proved that Isvara is not conceived by the Yoga Sutram as absolutely inactive.

How, then, is this last assertion to be reconciled with the previous one? In Aphorism 24 it is said that Isvara is eternally free from actions and their consequent desires: in other aphorisms, to wit, 23, 25 and 27, it is held that He is not wholly inactive and destitute of desires: He does some acts and has some desires. How can we reconcile them? The reconciliation is, I think, easy. When Isvara is said to be eternally free from actions and desires, these actions are good or bad, virtuous or vicious actions; and the desires are those which arise out of them. Now, those actions and desires are possible for man only: the epithets, 'good' or 'bad,' 'virtuous' or 'vicious,' are not applicable to the actions of Isvara, for He

is above duties and virtues. The sense of duty is the sense of the conflict between Reason and Inclinations-between the higher or rational Self in man and his lower or passional Self; and the virtue is nothing but a habit of doing duty. In Isvara no such struggle is possible, because He has no such passions and desires which resemble those which arise from the physical wants and appetites of man: Isvara is perfectly rational and perfectly realised, so that His actions cannot be called good or bad, virtuous or vicious in the same sense in which human actions are called so: or, more appropriately, those epithets are wholly inapplicable to His actions. This proves that Isvara is not inactive, but He acts and His acts should not be called good or bad, virtuous or vicious, and therefore, He is eternally free only from those actions to which those epithets are applicable. Divine actions, as we have found, are not prompted by desire, purpose, end or motive, as ordinarily understood, because such a desire, etc., arise out of human conditions which are absent in Isvara: His actions are perfectly spontaneous. The same is true of desires: Isvara has, no doubt, desires, but these desires are not determined by or follow from the good or bad actions, because He is eternally free from such actions. Like His activities. His desires also are perfectly spontaneous and are not determined by any wants. In short, the activities, desires, etc., of Isvara are of a quite different order and nature, the most imperfect resemblance of which is found in the most highly developed life, such as the life of a saint or a prophet. Thus we find that the two apparently inconsistent assertions are not really inconsistent: they are both true so far as they go. We, therefore, conclude that according to the Yoga Sutram Isvara is a perfect will. We have already proved that according to the Yoga Sutram Isvara is a perfect self-consciousness or intellect; He is, therefore, both a perfect Intellect and a perfect will. Thus, He is a person, or rather, super-person.

There are several verses in the Santiparva of the Mahabharata which go to confirm the above conclusion, e.g.,

"When the time comes for Universal Dissolution all existent objects and gunas are withdrawn by the Supreme Soul which then exists alone like the Sun withdrawing at evening all his rays; and when the time comes for creation He once more creates and spreads them out like the Sun shedding his rays when the morning comes. Thus the Supreme Soul, for the sake of sports, repeatedly considers Himself invested with all these conditions, which are his own forms and qunas infinite in number and agreeable to Himself. It is thus that the Supreme Soul, though really above the gunas, becomes attached to the path of acts and creates. by modification. Nature invested with the conditions of birth and death, and at once with all acts and conditions which are characterised by the three gunas." Again: "Although the Supreme Soul is not subject to changes of any kind, and is the active principle that sets Nature (Prakriti) in motion, yet entering a body which is united with the senses of knowledge and actions, He considers all the acts of those senses as His own " (ibid, verse 43). "The Supreme Soul is said to be that who is above the attribute of Ignorance or Error, who is Unmanifest and beyond all qunas, who is called the Supreme, who ordains all things, who is Eternal and Immutable, and overrules Nature and all her gunas." (Chap. 305, 32.) Still again: "O best of kings, this is the manner in which the creation and the Destruction of Nature takes place: the Supreme Being is all that remains when Universal Destruction takes place, and it is He who assumes various forms when Creation begins. This is even so, O king, as ascertained by men of knowledge. It is Nature that causes the Over-presiding Soul to thus assume diversity and revert back to unity. Nature also herself has the same marks. One fully conversant with the nature of the categories knows that Nature also assumes the same sort of diversity and unity, for when destruction comes she reverts into unity and when creation takes place she assumes diversity of form. The Soul makes Nature which contains

the principles of production or growth and assumes various forms. Nature is called Kshetra (soil). Above the twenty-four categories or principles is the Soul which is Great. It presides over that Nature 'or Kshetra. Hence, O great king, the foremost yatis say that the Soul is the Presider. Indeed we have heard that on account of the soul's presiding over all Kshetras, He is called the Presider. And because He knows that Unmanifest Kshetra, He is, therefore also called Kshetrajna. And because also the Soul enters into Unmanifest Kshetra, He is called Purusa.'' (Chap. 306, 33-37.)

The same fact is declared in a more emphatic way by Yāinavalkya in his conversation with Janaka: "The Unmanifest Isvara transforms His supersensible Self by Himself into hundreds and thousands and millions and millions of forms." (Chap. 314. 2.) Again, "On account of the Supreme Soul's supremacy over the categories, He is said to partake of their nature; on account also of His agency in the matter of creation, He is said to possess the quality of creation. On account of His agency in the matter of yoga, He is said to possess the quality of yoga. For His supremacy over those particular principles known by the name of nature, He is said to possess the character of Nature. For His agency in the matter of creating the seeds, He is said to partake of the nature of those seeds. And because He causes the several principles or gunas to come into being, He is said to be subject to decay and destruction." (Chap. 315, 7-9.)

One point should be made clear in this connection. Although in the above verses it is definitely and distinctly asserted that Isvara or the Supreme Soul is the real cause of the manifested world, yet, in some other verses the opposite view seems to be entertained. For instance, consider the following verses: "That which is shorn of the gunas, O dear, is incapable of being made to be possessing the gunas. Listen, however, to me as I explain to you what is endued with the gunas and what is not. Great Munis conversant with the truth about

principles say that when Soul seizes the gunas like a crystal catching the reflexion of a red flower, He is said to be possessed of the gunas: but when freed from them like the crystal freed from reflexion. He is seen in His real nature which is above all gunas." (Chap. 315, 1-2.) Again, "On account, again, of His being the witness of everything, and on account, also, of there being nothing else than He, as also for His consciousness of oneness with Nature (Prakriti) vatis endued with ascetic success, conversant with the spiritual science, and freed from fever of every sort, consider Him as existing by Himself without a second " (ibid, 9). But if we examine those verses carefully we find no inconsistent assertion made in them. Sānkhya philosophy has, as we have said, all along entertained apparently opposite views with regard to the Soul (Purusa); the Soul, it maintains, has two aspects or sidestranscendent and immanent. In so far as the Soul is immanent in the manifested world He is called saguna, or invested with three gunas, that is, assuming numberless finite forms; and in so far as He is transcendent over the manifested world, He is called nirguna, or divested of the three gunas, that is, existing in His own pure essential form. We have already discussed, at considerable length, the reasonableness of such a distinction and found that there is no inconsistency involved in it.

If we now come to the Bhagabatgitā we meet with similar assertions. Sometimes the Supreme Soul is spoken of as nirguna and sometimes as saguna. Consider, for instance, the following: "That is, the Supreme Soul, though devoid of all the senses, appears to be occupied in their functions; though unattached to any thing, He is all-sustaining, and though devoid of all the gunas, He is the experiencer of them all. Though Himself whole and undivided, He exists in all things as if He were divided; He should be regarded as the creator, the sustainer and the destroyer of all things. Prakriti (Nature) is said to be the cause of the body and the senses, while Purusa is said to be the cause of the experience of

happiness and misery. O Bharatarsava, know the union between the Kshetra (Prakriti) and the Kshetrajna (Purusa) to be the real cause of all the animate and inanimate things. He sees truly who considers the activities done everywhere as due to Prakriti, and that Purusa is inactive or non-agent. The Individual Purusa attains the status of the Brahman when he beholds all the distinct creatures to be existent in one and the same Soul, and understands the origination of the universe to be due to that one Supreme Soul." (Chap. 13, verses 14, 20, 28, 29, 30.)

Turning to Srimad Bhagabata we find similar assertions. Examine, for instance, the following: "That is, in this way identifying Himself with Prakriti, Purusa thinks himself as the agent of the actions really performed by her gunas. For that reason, His migration, bondage and subjection are due to that identification, although He Himself is non-agent, lord, witness and full of bliss. Know Prakriti to be the cause of the body and the senses, and Purusa, who is above and beyond Prakriti, to be the cause of the experience of happiness and misery. On account of being unchangeable, inactive, and devoid of the gunas, like the reflexion of the sun in water, Purusa, though residing in Prakriti, remains unstained by the gunas. But when that Purusa becomes attached to them, He gets stupefied by self-consciousness and thinks Himself to be the agent. O women, He is Isvara, called Kala, who prompts Prakriti, when her gunas attains the state of equilibrium, to the act of creation. When the Supreme Soul or Isvara threw his semen (in the form of consciousness) into the womb of Prakriti agitated by the influence of the previous actions of the jivas she gave birth to the category of Mahat (consciousness or intelligence) prolific of multifarious manifestations. When the category of Mahat, thus generated from the semen of the Supreme Soul, underwent changes, it gave birth to the three kinds of self-consciousness (Ahamkāra) characterised by the power of activity." (Skanda 3, Chap. 26, 6-8; ibid, Chap. 27, 1; ibid, Chap. 26, 16, 18, and 22.)

Let us now turn to the Brahma Sutram where some assertions are made, which seem to go against our contention that Isvara and Prakriti are interdependent and mutually inclusive. Examine the following aphorisms: (1) "Prakriti being dependent on Isvara is capable of acting to realise an end, i.e., of creation. (Chap. I, pāda 4, aph. 3.) Nimbārka comments on this in this way: "Pradhana or Prakriti as described in the Upanishads, being dependent on the Supreme Cause (i.e. Isvara), is capable of purposive action, i.e., creation, whereas Pradhana as described in the Sānkhya, being independent of Him. cannot be so: such is the difference." Here it is distinctly stated that Prakriti is, according to the Sankhya, independent of Isvara. understand wherefrom that conclusion is drawn. I have conclusively proved by citing numerous texts that Isvara, and Prakriti are, according to the Sankhya, mutually inclusive and eternally united; Prakriti is nothing but an element or power of Isvara as much according to the Sankhva as according to the Upanishads. This is, therefore, no doubt, a strange misunderstanding. (2) "There is nothing beside Prakriti which can prompt her to action; Purusa is eternally unattached to anything '' (Chap. II, pāda 2, aph. 4). Nimbārka comments on this thus: "Pradhana cannot be the cause of the world, because it is not guided by the conscious Purusa: Why? Pradhāna being independent, it has no other assistant than itself. Here, too, it is supposed that Pradhana is independent of Isvara according to the Sānkhya; but that the supposition is mistaken has been satisfactorily proved before. It is curious that Vyāsa, as the author of the Brahma Sutram, declares that Pradhana or Prakriti is, according to the Sānkhya, independent of Isvara, while, as the commentator of the Yoga Sutram writes that Prakriti and Purusa are not wholly distinct, that the Brahman resides in concealed form in the chitta, i.e., the mind which is nothing but a compound of three evolutes of Prakriti, and that the knowledge of the world attained by the Buddhi-sattva (the pure intellect) is identical with that of Purusa. (Vide the

commentaries on Aphorism 20 of the Sādhanā Pāda, Aph. 4 of Samādhi Pāda, and Aphs. 22 and 23 of the Kaivalya Pāda).

Now. Vyāsa has evidently derived his view from the Upanishads; therefore it is necessary to examine carefully the texts referred to above. In several Upanishads Prakriti and her evolutes are mentioned in various connexions; but it is in the Svetashvatara Upanishad in particular that the relation between Isvara and Prakriti is more explicitly described. The texts are as follows: "Pradhana or Prakriti is changeful, but Isvara is unchangeful and immortal; that One (Isvara), manifesting Himself, regulates the aforesaid changeful Pradhana and all Jivas. The jivas liberate themselves from the world-illusion by means of constant meditation upon Him and thinking Him as one with themselves." (Chap. I, aph. 10.) "If one knows Him, all his connexions with the world are severed; so that all the pains of that wise one arising out of non-discriminative knowledge (avidyā) are destroyed and he becomes released from repeated birth and death. By meditation upon Him that wise Purusa, after the destruction of the body, attains that third essential form of Isvara which is unmanifested in, and above the world, and thereby becomes the possessor of all worldly grandeur, as well as becomes entirely self-contented and divested of the three gunas." (Ibid, aph. 11.) "This self-existent Brahman is the only thing worthy to be known, there being nothing else fit to be thought of: this Brahman is the enjoying jivas, the enjoyable world, and Isvara (lord), their guide and ruler. He has these three forms, and should be meditated upon in this way only." (Ibid, aph. 12.)

"Eternal One (i.e., the individual Soul), enjoying another (i.e. Prakriti), which is equally eternal, and is red, white and black, i.e., possessing three gunas called Sattva, Rajas and Tamas, and procreatrix of various objects like herself, remains attached to her; another eternal one (i.e. Isvara) exists without being attached to Prakriti which supplies the materials of enjoyment to the Individual Purusa." (Chap. 4, aph. 5.)

"Two friendly birds live together on one tree (i.e. the body), one of which, called the Individual Soul, tastes the fruits of that tree, thinking them palatable, while the other (i.e. Isvara) does not taste them, but remains a mere spectator." (Ibid, aph. 6.) "On the same tree one bird called jiva lives and gets entangled with it, and being impotent to liberate itself, goes on lamenting: when, then, it comes to know the greatness of the other bird called Isvara it gets released." (Ibid, aph. 7.) "Prakriti, which possesses the three gunas, and is the material cause of the world, should be known to be a power of Brahman called Māyā, and Brahman should be known as the possessor or source of that power. The world is pervaded by the numerous different evolutes of that power called Māyā." (Ibid, aph. 10.)

In the above verses the nature of the Infinite Soul, the Finite Soul and Prakriti, as well as their mutual relations are clearly stated. What we are especially concerned with here is the precise relation between the Infinite Soul (Brahman) and Prakriti: this relation has been expressed by saying that Prakriti is nothing but a power or element of Brahman, and therefore, is not anything independent of Him. Sānkhya, as ordinarily interpreted, seems to declare Prakriti's independence of Brahman. For this reason the Sankhya is carefully distinguished from the Vedanta. Some go even so far as to assert that though the Sankhya nomenclature occurs in many places of the Upanishads, it signifies different things, and has never been derived from the Sankhya System: some even suspect that the Sānkhya has rather borrowed its nomenclature from the Upanishads and used it for its own special purpose and in its own special sense. It is curious that the name of Kapila also is mentioned in the Svetasvatara Upanishad. (Vide chap. V, aph. 2.) It is true that it is not easy to settle by conclusive historical evidence whether the Upanishads derived the nomenclature from the Sānkhya, or the Sānkhya from the Upanishad. The real difficulty in this connexion evidently arises from the apparently opposite interpretations given to the relation between Purusa and Prakriti. But I have conclusively proved before that the Sānkhya does not declare Prakriti as entirely independent of Purusa; it has rather definitely affirmed that Prakriti is an integral element of Purusa. Moreover, we find some significant verses in the Santiparva of the Mahabhārata which distinctly and emphatically declare that whatever knowledge we find in the Vedas has been derived from the Sānkhya. (Ibid, chap. 301.) It is there explicitly maintained that the Sankhya is the only source of all true and high knowledge, and that every other branch of knowledge including even the Vedas has derived its knowledge from the Sankhya. This is further confirmed by verses embodying the sayings of the great sage Yājnavalkya. (Vide chap. 316, 2; chap. 301, 100 & 101.) The Bhagabatgitā also bears the same testimony. (Vide chap. 5, vers. 4 & 5.) These are undoubtedly good and clear testimonies which go to show that there is no real inconsistency between the Upanishads and the Sankhya with regard to the relation between Purusa, whether Absolute or Individual, and Prakriti. It is surprising that Vyāsa, who, as the writer of the Mahābhārata, is quite aware of these facts, has still written to say that the Prakriti of the Upanishads is wholly different from that of the Sankhya. He has, as I have pointed out before, also contradicted himself when he has explained the relation between Prakriti and Isvara in his commentary on the Yoga Sutram.

We may conclude, then, by saying that the Sānkhya teaches that there is One Absolute Purusa—One Absolute self-conscious Soul or Isvara, who includes Prakriti as one of His constituent elements and uses her as the means to differentiate or embody Himself into numberless objects which constitute the world; and that He being, thus, a self-conscious 'system' or 'world,' and also the ultimate source of all activity or effort, He may be properly called a *Person*: but He being a perfect Unity, He should more appropriately be called Super-Personal.

LOVE MISUNDERSTOOD

Ι

Ah! she loves him and he loves her
But one to other they never tell.
Within shines sweetest paradise,
Without dark devil of blackest hell.
While he for her rejoicing means
She thinks it torture dire,
His hand outstretched with whitest peace
She fears to kiss as ire.
She runs to hug forgetful cold
And there feels love's bright fire.
Back she turns on path she'd trod,
Finds she's soul and He her God!

II

The glorious sun is hid by cloud,

He's there unseen by me;

His love is ever sweetness pure

For loving heart to see.

III

Ah, when I call Thee Love, O Love,
I forget that unlove Thou,
And when I call Thee Mercy, Lord,
Then whence unmercy—how?

The mind of man, his spoken word

Hang e'er on head a fearsome sword.

Thou art but what Thou art—

Thou art but what Thou art— Unspoken joy of heart.

IV

The least little and the greatest great—
Alike they be Thy work, O Lord!

May I in all things see Thy hand
That binds this heart with peace-lived cord!

Remember I midst noise and start

That I am Thine and mine Thou art!

MOHINIMOHAN CHATTERJI

BARHUT INSCRIPTIONS

(A reply to Dr. J. Ph. Vogel's objections)

I find that Dr. Vogel in his instructive review of the edition of 'Barhut Inscriptions' jointly prepared by me and Kumar Gangananda Sinha, has raised certain doubts and objections, and it is gratifying to note that, so far as these are concerned. his opinion of the book concurs with that of Dr. S. K. De who published his review in the Indian Historical Quarterly some time back. To my mind, all the doubts and objections of Dr. Vogel are very natural when the book is read by a rightminded critic independently of the monograph on 'Barhut Jātaka-scenes and Art 'and its Introduction, which, too, is a joint-work of myself and Miss Stella Kramrisch in course of publication together with a Book of Barhut Plates, and in which the subject has received a comprehensive treatment. The original plan was to include the edition of 'Barhut Inscriptions' in this monograph, treating it as Book I. As it now stands, it is rather out of its context, and in spite of the fact that it has been presented to the reading public as a complete whole by itself, it is intended to be read and judged in reference to the general monograph.

We are grateful to Dr. Vogel for drawing our attention to the studies of some of the Barhut bas-reliefs by Mr. S. J. Warren and M. Foucher, which are however not omissions, though missed in the Bibliography attached to the Book of Inscriptions, for the reason that they have been appropriately included in the Bibliography of the general monograph along with a few other contributions to which Dr. Vogel has not drawn attention.

Dr. Vogel's objection "that scenes relating to the legends of the Buddha Sākyamuni in his final existence, such as the descent of the Bodhisattva from the Tuşita heaven or the gift of the Jetavana by Anāthapindika, although they are found in the introduction to the Jātaka-Book, cannot possibly be reckoned among Jātakas in the generally accepted meaning of this term."

·His objection would have been valid if the Barbut basreliefs were a work of to-day, which is to say, that it holds good now when we are taught to think of 'Jātakas,' rather narrowly, as 'stories of the past.' But this was certainly not the sense in which the term 'Jātaka' was understood in the 2nd or 1st century B. C. If one cares to look into p. 80 of the Culla-Niddesa which is a book of the Pāli Sutta-Pitaka, it will be seen that the Mahāpadāna-Suttanta (the first Suttanta in Vol. II of the Dīgha-Nikāya), containing legends as it does of the seven Buddhas in their final existences, has been distinctly mentioned as a typical instance of 'Jātaka,' at the head of a list of four Suttantas, the remaining three, viz., the Maha-Govinda, the Mahā-Sudassana and the Maghādeva, representing 'stories of the past.' Thus according to the Pali canonical usage, the term 'Jātaka' must be taken to denote as well the stories of the present as those of the past. If it be granted that the date of compilation of the Culla-Niddesa cannot be pushed further back than the 2nd or 3rd century B. C., the presumption should be that such was precisely the general sense in which the term was accepted by the Buddhists themselves when the Barhut bas-reliefs were carved. All the scenes which are in some way or other connected with the life of the Buddha, or with his memory, or with his worship, come under 'Jātakas,' and the inscriptions labelling them are 'Jātaka Labels.'

To say there is no "reason to assume that the well-known pillar-figures of demi-gods and demi-goddesses guarding the entrance to the sacred enclosure are meant to suggest any specific legend from Buddhist literature" is to suppress an important issue instead of facing it.

Lan quite see that these demi-gods and demi-goddesins they figure on the Barhut railings, inner and outer, either for a galaxy of worshippers, or stand as guards of the sacred edities. for serve as mere scare-crows. But this leaves unexplained why some of them have been represented as standing with folded hands directed towards something or some one, while others in a simple standing attitude. To suggest that the difference of attitudes was entirely due to fancies of the sculptors or craftsmen would, I think, be to take the matter too lightly. the other hand, if it be found that in instances where they have been represented as standing with folded hands, as if worshipping something, as if listening to some one, we discover certain specific Suttas where they invariably figure as interlocutors. I think the presumption cannot but be that there lurks behind these carvings also the motive of represent-'ing these specific Discourses or Legends.

As a matter of fact, one of the theses which I have sought to maintain in Book I of the monograph (Barhut Stone as a Storyteller) is that we shall fail of our purpose if we cannot detect a complete scheme of literary selections from the Suttas underlying the carvings, or feel the hand of the Buddhist monks, vitally interested in the popularisation of the Suttas, behind the tools of the stone-carvers who were carried away by the idea of designing and embellishing. It is very curious indeed how by the decree of fate the craftsmen (call them sculptors or artists, if you please) who were employed to work for wages got the upper hand. the monks who really employed them, and managed to frustrate the purpose of the employers for which they were employed. They were employed to represent the Mahapadana-Suttanta; They made their designs of seven Bodhi-trees, taking each to be symbolical of the life-history of a Buddha. placed them wide apart, labelling each so as to draw att he whethent object in their parying, pemely, the lade placing them in order and labelling



A walk wherefrom escape is difficult. Brahmin's son killed by a snake. A scene of the Uraga-Jātaka

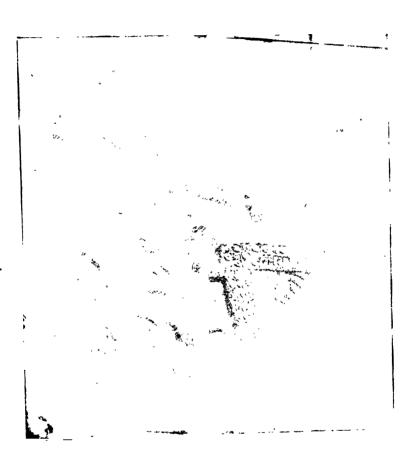
studied all with reference to the Mahāpadāna-Suttanta. They were required (to take another instance) to represent the Dhammacetiya-Sutta in the Majjhima-Nikāya. Instead of naming the scene as the Dhammacetiya-Sutta, they have made use of two labels, viz., "Rājā Pasenaji Kosalo" and "Bhagavato Dhamacakaṃ," in order to attract notice to two prominent objects in the scene as depicted by them, namely, the shrine of Dharmacakra and the moving figure of King Prasenajit.

I fail to understand why Dr. Vogel objects to the proposed identification of the scene labelled Dadanikamo cakamo with the Uraga-Jātaka (No. 354). When I published the paper proposing this identification in the JASB, N.S., Vol. XIX, 1923, I, too, had some doubts about its correctness. But subsequent detection of two more details, which escaped my notice when I had first studied the scene, has enabled me to place the identification on a firm basis. I would just request Dr. Vogel to look once more into the scene where he is sure to notice a snake on the left side of the bundle of burning faggots, and on the right side of it the dead body of a young man lying on the ground. Thus it cannot be denied that this particular scene is associated with a distinct legend 'preserved in literary tradition.'

Dr. Vogel has quoted our explanatory note on the label Tikotiko cakamo: "The label is attached to a Jātaka-scene in which the Bodhisat then born as a king of elephants is in a position to drive away the lions from the spot, or to the scene of a triangular lake guarded by dragons, elephants, and lions." I must point out that in Book II of the monograph, I have adhered to the second alternative. The subjoined extract from my study of the scene (Cunningham's Stūpa of Barhut, Pl. XXVIII, Scene 1) will, I hope, clear up my position:

"The presence of two trees indicates that the scene is laid in a forest or mountainous region. The triangular resort, referred to in the inscription, is a triangular lake or pool which is guarded by its three-headed dragon dweller (triśīrṣa nāgarāja). The three banks represent three uniform sides of the triangle

bearing various auspicious marks of leaves and flowers on their ornamented surface. The dragon-chief is evidently lying on his back at the bottom of the lake jealously keeping watch over the surface of water from below. The two lions below the lake stand facing each other, one looking towards the front, the other looking towards the back, both of them showing an attitude of alertness in making attacks, with their gaze fixed in the same outward direction. As regards the herd of wild elephants, the various attitudes of eating and drinking are not so important as those of keeping watch and guard. The one at the bottom who sits characteristically behind one of the lions, keeping the front legs erect and the gaze fixed in the outward direction, is posted as a sentinel. Two powerful elephants beside the sentinel stand vigorously on the right, facing the same direction as is faced by the sentinel and the lions. are apparently stationed as generals, while the leader of the herd stands majestically beside them, in the upper part of the medallion, watching the whole situation before his eyes. This leader, the two generals and the sentinel encircle the younger elephants, among whom two bigger ones stand face to face, and the smallest one drinks water from a stone bowl. What is the subject of this scene? One might be tempted to think that the subject is a Birth-story in which the Bodhisat, then born as a powerful elephant, lived as the lord of a herd in a forest region infested with lions, near a triangular lake which was the dwelling place of a fearful dragon-chief, vigilantly guarding his followers against all dangers and enemies. But this interpretation cannot stand in view of the fact that the elephants and the lions are apprehending the danger from one and the same direc-There is no sign of an attempt on the part of the lions to attack the elephants. The representation is rather of a scene in which they have a common cause to serve. The inscription characterises the representation as the scene of a triangular resort. The resort itself is a triangular lake which is the meeting place of a dragon-chief, a pack of lions and a herd of wild



A triangular resort guarded by a aragon, a pack of lions and a herd of elephants

elephants. If the resort were a sample lake, we cannot understand why its banks should be highly ornamented. The resort must be associated in some way with the Buddha or Buddhas. It may be a triangular lake in a forest region, on the banks of which the Buddha or Buddhas washed the robes, and which was guarded by the dragon-chief, the lions and the elephants. Hwen Thsang's description of a lake in Benaics may throw some light on the meaning of the scene. In one of the lakes, says Hwen Thsang, the Buddha used to wash his robes, and a dragon dwelt in it. 'The water is deep and its taste sweet; it is pure and resplendent in appearance, and neither increases nor decreases. When men of a bad character bathe here, the crocodiles come forth and kill many of them; but in case of the reverential who wash here, they need fear nothing By the side of the pool where Tathagata washed his gaiments is a great square stone, on which are yet to be seen the trace-marks of his kaṣāya robe The bright lines of the tissue are of a minute and distinct character, as if carved on the stone. The faithful and pure come to make their offerings here; but when the heretics and men of evil mind speak lightly of or insult the stone, the dragon-king inhabiting the pool causes the winds to rise and rain to fall." 1

The labels whereby the Barhut crattsmen or artists have drawn our attention to an attractive object, a cankrama or a cartya (woodland shrine), introduced by them in some of the scenes, need no longer mislead us. These are the devices whereby they, consciously or unconsciously, had tried to bring their own workmanship into the forefront, pushing the literary tradition into the background. They, as the following analysis will show, had not followed any fixed principle of labelling the scenes, and although they had followed many principles, in the majority of cases they were eager to accord prominence to their own workmanship:

A. Some of the attached labels characterise the scenes

with reference to the illustrated stories, called after the Bodhisattva:—

(¹.)	Maghādeviya-Jātaka	$[{f Barhut}]$
	Makhādeva-Jātaka	[Jātaka-Comy.]
(2)	Isimiga-Jātaka	[Barhut]
	Nigrodhamiga-Jātaka	[Jātaka-Comy.]
(3)	[Bhojājā] niya-Jātaka	[Barhut]
	Bhojdjāniya-Jātaka	[Jātaka-Comy.]
(4)	Haṃsa-Jātaka	[Barhut]
	Nacca-Jātaka	[Jātaka-Comy.]
(5)	Nāga-Jātaka	[Barhut]
	Kakkaṭa-Jātaka	[Jātaka-Comy.]
(6)	Sujāta-gohuta-J ā taka	[Barhut]
	Sujāta-Jātaka	[Jātaka-Comy.]
(7)	Latuva-Jātaka	$[{ m Barhut}]$
	Laţukika-Jātaka	[Jātaka-Comy.]
(8)	Miga-Jātaka	[Barhut]
	Ruru-Jātaka	[Jātaka-Comy.]
(9)	Chadaṃtiya-Jātaka	[Barhut]
	Chaddanta-Jātaka	[Jātaka-Comy.]
(10)	Isisiṃgiya-Jātaka	[Barhut]
	R şyaśṛṅga-Upākhyāna	[Mahābhārata]

B. Some of the labels characterise the scenes with reference to the principal actors:—

(1)	Citupādasila	[Barhut]
"	The gamblers fond of the squarebo	oard game.''
	$Litta$ - $Jar{a}taka$	[Jātaka-Comy.]
(2)	Asadā vadhu susāne sigālā ñ ati	[Barhut]
"	Woman Āṣāḍhā, jackals on a	•
	funeral ground and her kinsman."	
	Asilakkhaṇa-Jātaka (?)	[Jātaka-Comy.]
(3)	Kamdāri-Ki (narā)	[Barhut]
	Ka ņ dari-Jātaka	[Jātaka-Comy.]

ļ	District 2 22.12 October 1	
(4)	Bidala-Jātaka Kukuṭa-Jātaka	[Barhut]
(-/	Kukkuṭa-Jātaka	[Jātaka-Comy.]
(5)	Uda-Jātaka	[Barhut]
(0)	Dabbhapuppha-J ā taka	[Jātaka-Comy.]
(6)		$[{f Barhut}]$
(-)	'Spell-muttering Vidyādhara.''	
	Samugga-Jātaka	[Jātaka-Comy.]
(7)	` Kiṃnara-Jātaka	[Barhut]
` '	Episode of Kinnaras in the	51 Q 7
	Takkāriya-Jātaka	[Jātaka-Comy.]
(8)	Usukāro Janako rājā Sivalāde	vi [Barhut]
-	'' Arrow-maker, king Janaka, q	ueen Sīvalī.''
	One of the episodes in the	[Tatales Comy]
•	Mahājanaka-J ā taka	[Jātaka-Comy.]
(9)) Vitura-Puṇakiya-Jātaka	[Barhut]
	Vidh ū rapaņdita-Jātaka	[Jātaka-Comy.]
c. s	Some of the labels describe the m	nain actions:—
(1) Secha-Jātaka	[Barhut]
(-	"Water-drawing in the Jātaka	-scene.''
	Dubhiyamakkaṭa-Jātāka	[Jātaka-Comy.]
(2	2) Diyhatapasi sise anusāsati	[Barhut]
	"Venerable ascetic instructs hi	is pupils."
	M ū lapariyāya-Jātaka	[Jātaka-Comy.] [Barhut]
(3) Bhisaharaniya-Jātaka	
•	"Jātaka-scene with reference fibre-stealing."	10 10tus-
	nbre-stearing. Bhisa-Jātaka	[Jātaka-Comy.]
,	4) Vaduko Katha dohati Nadode	
(" Vaduka extracts juicy balm	on Mt. Narada.
	Vadikavastu	[Avadāna-Sataka]
7.	Game of the labels characterise	the scenes by external

D. Some of the labels characterise the scenes by external associations:—

(1) Migasamadaka-cetaya	$[{f Barhut}]$
" "Woodland-shrine in the animal fe	eding-ground.''
$Vyaggha ext{-}Jar{a}taka$	[Jātaka-Comy.]
(2) Nadodapāde dhenachako	[Barhut]
'' Trim-boughed Banyan tree at Nārada.''	the foot of Mt.
Dhonasākha-Jātaka (?)	[Jātaka-Comy.]
(3) Dadanikamo cakamo	[Barhut]
"The resort wherefrom escape is d	ifficult."
Uraga-Jātaka	[Jātaka-Comy.]
(4) Abode cātiyaṃ	[Barhut]
"At the watery lake."	- -
Mātiposaka-J ā taka	[Jātaka-Comy.]
(5) Yavamajhakiya-Jātaka	[Barhut]
" Scene of Jātaka-episode with refer Yavamadhyaka."	rence to the village
Mahāummagga-Jātaka	[Jātaka-Comy.]
(6) Jabū Nadode pavate	$[\mathbf{Barhut}]$
" Rose-apple tree on Mt. Nārada."	
The episode in the	
$Vessantara ext{-}Jar{oldsymbol{a}}taka$	[Jātaka-Comy.]
(7) Himāni (cakamo)(?)	[Barhut]
"Snowy resort."	
E. Some of the labels characterise a associations as well as actors:—	scene by external
associations as well as actors,—	
(1) Bahuhathiko	$[{f Barhut}]$
" Attended by many elephants."	
Bahuhathiko nigodho Nadode	[Barhut]
"The Banyan tree on Mt. Narada, elephants."	attended by many
Susupālo kodāyo Veduko arāmako	[Barhut]
"Sisupāla the fort-keeper, Venuka i	
Mahāvāṇija-Jātaka	[Jātaka-Comy.]

- F. Some of the labels characterise the scenes by catchiwords of the moral verses by the original stories:—
 - (1) Yam bramhano avayesi Jātaka [Barhut]

 "Scene of the Birth-story with the moral verse—
 As the Brahmin played."

 Andabhūta-Jātaka [Jātaka-Comy.]
 - (2) Dusito giri dadati na [Barhut]
 "The would-be rogue did not offer the hill."
 Succaja-Jātaka [Jātaka-Comy.]
 - (3) Mugapakaya-Jātaka [Barhut] Mugapakkha-Jātaka Jātaka-Comy.]
- .G. There are two curious instances where the labels are mainly Votive and are at the same time Jātaka:—
 - (1) Bhadata-Mahilasa thabho dānam [Barhut] (With the figure of Mihira the Sun-god)
 - (2) Bibikānadikata-Suladhasa asavārikasa dānam [Barhut]
 - "Gift (of a scene of the trooper) of Sulabdha the trooper from Bimbikānadikata."

 The scene of the trooper based upon the Valāhassa-Jātaka

 [Jātaka-Comy.]

The rendering of $Kok\bar{a}$ devatā as "the hunter-goddess" is obviously conjectural. As our notes go to show, we took the clue from two literary sources: (1) the Koka-sunakha-vatthu in the Dhammapada-commentary in which Koka occurs as the name of a hunter hunting with the aid of dogs (one of the Barhut half-medallions representing such a scene of hunting), and (2) the Vessantara Jātaka in which $Kok\bar{a}$ denotes hunting dogs. In the monograph on 'Barhut Jātaka-Scenes and Art,' I have been concerned to test the above rendering by a close study of the bas-reliefs. Two of the Barhut labels contain the expression $Kok\bar{a}$ devatā, viz., (1) $Mah\bar{a}kok\bar{a}$ devatā, and (2)

Culakokā devatā. The first refers to a figure of a demi-goddess represented as plundering a fruit-tree standing on the ground, and the second to that of another demi-goddess also represented as plundering a fruit-tree with this difference that she stands on the back of an elephant. The photographs of the bas-reliefs containing these two figures will be found in Cunningham's illustrated monograph. But I am in possession of a photograph of another bas-relief containing a third figure of a demi-goddess, apparently of the same class, represented also as plundering a fruit-tree with this difference that she takes her stand on the back of a horse. Although there is no inscribed label to guide us, I have been tempted to label it appositely as Majhimakokā devatā. In the three representations, the common characteristic is the plundering of a fruit-tree. The demi-goddess carrying out her plundering expedition from the ground has been characterised in the label as mahā, 'great' or 'superior' the one doing the same from the back of an elephant has been characterised in the label as cula, 'small,' 'little' or 'inferior.' The epithets mahā and cula, or uttama and adhama suggest a third, which is majhima, 'middling' or 'intermediate.' Once we grant that the demigoddess plundering the fruit-tree from the back of a horse deserved to be characterised in the label (if there were any) as majhima, it becomes easy to understand that whatever her origin, the Kokā devatā cannot be dissociated from plundering or hunting expedition.

In suggesting that "the Pāli texts preserve in Makhādeva and Maghādeva two Prakrit forms of Sanskrit and Pāli Mahādeva, and that the same phonetic change of h into gh and of gh into h may be assumed to have taken place in the term Videgha (Satapatha Brāhmaṇa), our interest was to indicate the survivals of local forms in both Pāli and Sanskrit, and not indeed to treat any of these as a younger form of Pāli or of Sanskrit.

^{*} E.g., Isigili, the name of one of the five hills surrounding Rājagaha, which is said to have been so pronounced by the local people, instead of Pāli Isigiri or Sanskrit Prigiria Sas Isigili-Sutta in the Majhima-Nikāya, Vol. III.

I frankly confess that I am not at all sure of our grounds as to the reading, restoration or interpretation of such labels as Tanacakamo parirepo, Himāni (cakamo) and Nadoda-pāde dhenachako. As regards these, our attempts are pure guesses, although in the inscription containing Tanacakamo parirepo, we have clearly found another individual instance where the Votive and Jātaka labels are inscribed in a running manner. But Dr. Vogel will readily admit that these are immaterial as compared with the rest of the Barhut inscriptions.

We shall remain ever grateful to Dr. Vogel for the effective manner in which he has introduced the book, and no less for the touching words of appreciation with which he has concluded his review.

B. M. BARUA

BANKING IN MYSORE

The history of modern banking in Mysore, though of recent origin, has made considerable progress in the short space of time that it has worked. The phenomenal growth of the Mysore Bank with its branches shows what an Indian Joint Stock Bank can do under careful and expert guidance backed by the sympathetic consideration of Government. But much has to be done. In banking and similar matters, there is no finality and the chief aim of bankers is to chalk out the immediate lines of progress from time to time in accordance with the march of time.

Tremendous changes are going on in the world—especially in the financial and business world. Concentration of capital is being realised more than ever as the sine qua non of economic mass production. Mergers, pools, syndics, etc., have become the rule in advanced western countries. Long before this, financial experts were agreed that the true progress of our banking was to set up a policy of centralization along with branchi-The motto was and continues to be "The one in fication. the many and the many in one." In our own country, the efforts of the Imperial Bank, aided by the Government of India, has been able to establish a strong banking tradition on modern lines and its branches are bringing nearer and nearer the banking facilities so necessary for the businessmen. The proposed creation of a Reserve Bank and other recent changes recommended by the Hilton-Young Commission are only a further step in this national and natural development.

One of the important functions of the Joint Stock Banks has been hitherto the financing of the internal trade of the country; their problem is what is the position of their own business with the newly-to-be-formed Central Bank and, it is

a matter of deep concern to Mysore, to specially consider this problem in relation to banking in Mysore. For after all in matters economic, Mysore must sink or swim along with her neighbours. True that the Mysore Bank and its branches, as they are now, might continue to capture whatever banking business there is or might be in the different parts of our State, but in the equally if not more important sphere of foreign trade financing, the banking system of Mysore has to meet with the severe competition of the Imperial Bank which, partly divested of its present Government obligations, will run on strictly commercial and competitive principles. Mysore cannot be said to be immune from the activities of the Imperial Bank as it has cut its wedge into the state by having a branch of its own in Bangalore which for all practical purposes may be considered the heart of economic Mysore.

Here is a turning point in the history of Banking in India and Mysore must move with the times. Mysore should not only feel satisfied with the present position of its banking but must take a bold step and, as they do in all matters which appear beneficial, follow the foot-steps of the Government of Simla. The leading bank, the Mysore Bank, must be placed under statutory obligation to establish every year a number of branches like the Imperial Bank of India at present. The long delayed transference of duties now performed by independent Government treasuries might with advantage be given to the Mysore bank, which has now established a name for solidarity. The loss to the bank in establishing branches under statutory compulsion in places of doubtful profit will be more than compensated for by the Government leaving its cash balances with the Bank and its branches. The administration of the country would then be relieved of the worries of maintaining cash balances and any defalcations or mishandlings of the Government's balances will be borne by the Bank's shareholders instead of individuals being tackled as under the present system with all its nauseating troubles and anxieties. The Government will be

able to hold a corporate body responsible for its finances. Thus relieved of one of the important duties at present devolving and exercising the energies of Government servants, the Government can turn its attention in a greater measure to the other departments of work like economic development, education, etc. In the meanwhile, this additional strength afforded by Government cash balances being in the hands of the bank, will enable the bank to give increased facilities to Mysore trade and commerce, which are at present suffering from lack of sufficient capital.

Supported thus substantially, the Mysore bank can launch upon a forward policy of encouraging exports and imports of the State. It will be enabled to come down as a helper to the Co-operative societies and other joint-stock banks which may be formed. The question of Land Mortgage Banks will be an easier proposition as the central bank with its resources can aid land-mortgaging business through co-operative societies in a better and more efficient manner than any agency of Government could do. The Bank would be in a better position to popularise the cheque system through its different branches, thus saving the need for the State to use so much of British India currency and in a sense establishes, to a very limited extent no doubt, an independent currency regulated by the ups and downs of its own trade. The Government will benefit by making use of the cheque system and in all matters financial will have the ready assistance and advice of the keen foresight of the shrewd bankers.

The Mysore Bank and the Mysore Chamber of Commerce have with one voice recommended the proposal of the transference of Government finance to the Mysore Bank as it would facilitate trade in a greater measure than at present. But apart from this the advantages to the State and the public are so evident that the transfer will be most welcomed by all parties concerned. In short, a partial application of the English Charter Act of 1844 and the recent recommendations of the Hilton-Young Commission might prove both beneficial as being

necessary and opportune as well as being a step in consonance with the developments in the neighbourhood. An urgent necessity is the formation of a strong committee to go thoroughly into the conditions of banking in Mysore and suggest in the light of their findings and the findings of similar commissions elsewhere, practical steps for the further development of Mysore Banking.

P. SUBBARAYA SASTRY

TO PEARL

Did you catch a sight of beauty

In her lovely fragile face?

Did you sense the scourge of sorrow

That lent it quiet grace?

The eyes reflected patience; and hope long overdue;

But, Oh, her smile was glorious,

Like Heaven shining through.

Her hands were little weapons, to beat against the sky;

And from her throat there came a note

Between a croon and cry.

ANCIENT INDIAN LIFE 1

 \mathbf{II}

Agriculture has been recognized since the Vedic times as the mainstay of a population. The Vedic farmer used to sing a hymn dedicated to the Lord of the Field, Kshetrapati, at the time of first ploughing, just as they addressed a hymn to the Lord of the Building Site, Vastoshpati, at the commencement of a house. A similar custom is found among the Mundas of Ranchi, when the women begin the transplantation of rice with a song in chorus describing the operation. It is a joyous occasion, first putting the plough to the field, and the ceremony, halakarshana, is still observed by the Hindu cultivators. since every joy is accompanied with a sense of sorrow, anxiety and suspense, due to anticipation of possible mishap, the hymn to Kshetrapati is one of the beautiful compositions in the Rig-veda. It is not so much a prayer, the need of which is felt by the weak and timid, as an expression of a desire which is going to be fulfilled. The Vedic farmers sang: "We will win the field," that is to say, make the soil yield the crop. "We will win the field with the help of Kshetrapati, our friend. He feeds our kine and steeds with grass; may he be good to us also; may the crop be sweet to us; may the skies, the rains, the air be sweet, and may the Lord of the Field for us be full of sweetness, and may we follow after him uninjured." But soil alone however well-tilled cannot grow a crop. We know that air, warmth and light, and moisture are also absolutely necessary. It is astonishing to find the Vedic farmers addressing in this hymn the presiding deities of exactly the same five conditions of growth, Suna and Sīra of air and warmth, Pūshan of light, and Indra of moisture.2 They knew that plants grow more in dark-

¹ Adharchandra Mukerjee Lecture.

^{*} Yaska takes Suns to be air, Sira the sun. Pushan is the sun as giver of light.

ness than in light, but growth is possible only when Pūshan and others are favourable.

A question might be asked here: Was it a summer or winter crop for which the Aryans sought co-operation of the deities? It seems to me that considering the fact that Indra, the Thundergod, has not been made prominent in the hymn, moisture and not wetness of the soil was desired, and the hymn was first sung at the time of tilling the soil for a winter crop, like barley.

But successful cultivation of any crop presupposes some knowledge of the seasons, the times of the setting in of rains and winter, the time for ploughing soil and sowing seed, and the time when harvest may be expected. Apart from the daily concerns of life which might not be done at exactly the same time of the year, the early Aryans must have felt the necessity of a calendar without which agricultural operations would be mere child's play. It has been supposed, and, I think, wrongly supposed, that the origin of Indian astronomy was due to religion which enjoined performance of sacrifices in right times, and therefore led the Vedic Aryans to observe the heavens. contrary appears to have been the case. For feasts and festivals come after, and never before the concerns of animal existence have been looked to. Dr. Martin Haug pointed out long ago that certain sacrifices which were held in sessions extending over a year imitated the annual course of the sun. and Pandit Sham Sashtry has ably shewn how the sacrifice of Gavām Ayanam was intended to count the elapsed years. the sacrifices served the two-fold purpose of marking time and affording occasion for communal feasts and rejoicing. When a broad knowledge of the seasons, and their connection with the Sun's position among the Nakshatras, the solstices and equinoxes, had been gained, the sacrifices lost the earlier significance and became parts of the religious year.

Indra was the god of thunder and rain, and is still so with our villagers who often speak of him as god, devatā. He is still worshipped in many parts of India, and in the district

of Bankura, Bengal, on a certain day, the 12th day in the lunar month Bhādra. The day is known as Vāmana dvādaśī when Vishnu deprived Bali, the powerful Asura king, of his s sovereignty by a pretext. It is the day also of erecting a long pole with a flag at the top known as sakrotthana, better known as Indradhvajaropana, in honour of Indra. Bali has been named Dhundhu in Vāmana Puran, but we need not enquire now who the fearful Asura was, though the name and its use in Mahārāshṭra unmistakably point to the central figure in our Holi Festival. Let us here confine our attention to Indra's flag only. Varāha in his Brihat Samhitā states from old records that the ceremony was introduced by Uparicharavasu, a king of the Chedis. The erection of the pole was a state affair, and good or evil was associated with every detail of the ceremony. After four days it was lowered down, and if it fell toward the north-east it augured well for the country. Now, what might be the origin of the ceremony, and why Srikrishna in the Vishnu and Bhāgavata Purans objected to it and had in consequence to save the followers from a deluge of rain? Taking all the legends together, there is scarcely any doubt that Indra-pūjā marked the advent of the much coveted monsoon. Kautilya advocated it during drought (V. 3). The flag was hoisted in honour of Indra, and it showed the direction of wind, probably south-west wind which brings rain from the Arabian Sea to the country of the Chedis, Malva. The pole was employed to determine the summer solstice by its minimum mid-day shadow; and we know the taller it is, the more accurate the result. the fixed date of the ceremony, the solstice has receded by over two months, taking us back to 2500 B.C. Many a legend in the Puranas are an echo of the exploits of Indra sung in the Rigveda, and it is possible to explain them rationally with the aid of astronomy. Srikrishna was a reformer and objected to the celebration because the date was no longer true.1

See my article on the Origin of the Holi Festival in the Modern Review, for March, 1986.

The summer solstice has gradually receded and happens now when the sun is in Ardra Nakshatra instead of Phalguni as he did in the Rig-vedic times, that is between three and four thousand years B.C. Every calendar notifies the date either in the name of Ardra pravesa, entry into Ardra, or in the significant name of ambuvāchā. The date is observed by all cultivators who expect the bursting of the monsoon and the earth to be heavily wet so that no ploughing becomes possible. It is, however, difficult for us now to trace the reason of choosing particular dates for particular agricultural operations which are always accompanied with due ceremonies. But we may be sure they formed an agricultural calendar of old.

There were beliefs that it is possible to prognosticate rain and drought from the positions of the planets. For instance, the planet Venus was associated with rain like the deity Vena of the Rig-veda. They are possibly the same. Tilak and other Indian scholars were of the same opinion. Kautilya refers to the practice of forecasting monsoon by observing the position of Venus and Jupiter and the usual and unusual appearances The Jyotisha Samhitās endeavoured to find a of the Sun. relation between meteorology and positions of planets, and every calendar published in any province begins with a forecast for the coming year of rainfall, cloud proportion, force of wind, temperature and harvest. It is therefore no wonder that there were weather prophets who were looked down upon by Dharmasāstras¹ as they sometimes caused unnecessary alarm and unwarranted fluctuations in the market-price of commodities.

But there were other methods, perfectly scientific, which we cannot dismiss as superstitious. The question of probing the future for rain is of paramount importance for successful farming in a country like ours, and every kind of natural phenomenon from the sun-set colours of the sky, the halo of the moon, the haze of the atmosphere, to the growth and blossoming of plants was carefully scrutinized. Unfortunately we know

¹ See Manu, Atri (378), Vishqu (Chg 82), etc.

nothing about them, and can only suspend our judgment. There is a universal belief in our country that the state of the weather prevailing in the thirty days of the month of Pausha is an index to the weather of the twelve months of the year, each month receiving two and a half days of Pausha for observation of wind, haze, mist, cloud, lightning and rain. Jyotisha Samhitas have chapters on these methods and even from Kautilya it appears that almost a hundred and fifty forms of clouds were distinguished, evidently under the four well-known classes of avarta of no rain, samvarta of heavy rain, pushkara of little rain, and drong of rain sufficient for crops. There were the rain-gauge, varshamāna, and the wind-flag, patākā, the latter for ascertaining the direction and force of wind. The rainfall was expressed in terms of volume such as drona and ādhaka. Kautilya mentions the average annual rainfall of certain parts of our country and considers the seasonal distribution good if one-third of the requisite amount falls in the months of Śrāvaņa and Kārttika, the beginning and end of the rainy season, and two-thirds in the two intervening months. This distribution was evidently meant for Magadha or South Behar where monsoon appears a little later than in Bengal and the months correct for his time.

There was a curious method of estimating dryness of the air applicable in the month of Vaiśākha, and thence forecasting rain for the rainy season. A straight stick was divided into 200 equal parts and fixed in the current of a river at nightfall. Early the next morning the mark was examined for testing fall of the level by evaporation.

There were various ways of ascertaining whether rain is imminent and we often adopt them for our guidance. One was based on the observation of the behaviour of animals, a second on the clearness of the atmosphere as judged by the dazzling rays of the sun in the forenoon, a third on the appearance of rain-bow, mock-sun and mock-moon at sun-set and sun-rise, a fourth on the sound of thunder at night and straight lightning at day

and blowing of cool air, and so on. There is the well-known rule that dense cloud on the west, wind from the east, lightning on the south, or thunder on the north indicates rain. All rules such as these are of course limited to particular seasons, and true for those places where the observations were made.

Every peasant in every country has a set of rules to go by: for he cannot be perpetually asking himself when to do a thing. There are thus sayings everywhere, and in India the sayings of Dāk Purusha and of Khanā in Bengal represent the accumulated wisdom of ages. They are mythical persons, rather personifications of the sayings. The first name is equivalent to the expression, "The wise man," and the second name is derived from the fact that the sayings deal with Kshana or the right time for doing a thing, including agricultural operations. Popularly the second person is believed to be a lady possessed of wonderful knowledge of astronomy though there is not the least evidence to support the fancy excepting the apparently feminine form of the name. But nothing can surpass the sayings in directness of language and accuracy of observation, which have made them invaluable to our peasants. They vary in the provinces to suit the requirements. Just to quote an instance from the Bengal sayings. What is the best time for planting an offset of the plantain tree? The answer is, the month of Ashādha. The reason is obvious. For it is in this month that the rains set in, and the young plant gets the benefit of rain for three months, time enough for establishing itself in the new place. We can imagine the state of anxiety and suspense in which the peasants would spend their days without the help of rules of thumb. Agriculture is a serious business, a question of life and death to them. And it has been truly said that "life depends upon agriculture. For a man may possess fine dress, gold and gems, and yet have to starve or beg food from farmers. It is agriculture alone that can save him from the abject state of beggary.".

And what should be the acreage under cultivation? The unit is a hala or a plough, equal to 5 acres. It is stated that "ten halas give perpetual wealth, five money, three only food, and one debt. Two may just maintain a family but will not leave any surplus for performing the three-fold duties of man such as hospitality." The statement occurs in Krishitantra by Parasara, a tract on agriculture based on Parāsara, apparently the same as the reputed author of a Smriti and various other books. As it quotes Varāha, it cannot be earlier than the 6th cent. A.D., and since there is no mention of Rahu and Ketu in the astrological part, not later than the 8th cent. It was compiled when Prākrita words were freely used with Sanskrit. The same estimate is also found in Rājamārtaņda, a book of the 11th cent. Now if we take a family to consist of five members, each, according to the minimum estimate, would receive two acres for sustenance, instead of one-third of this as now in Bengal.

I shall translate a few passages from Parāśara.

"Careful supervision of a farm by the owner himself brings gold, and its want misery. He who takes care of his bullocks, goes himself to the field, knows the right times, possesses excellent seed, and is ever watchful, has no reason to feel want."

As to the selection and storing of seed, it is prescribed that

"Seeds have to be selected in Māgha or Phālguna, and exposed to the sun and night-dew. Seed of each variety is to be selected separately and carefully stored in receptacles made of straw. Take care that the seeds are not mixed, and do not come in contact with ghi, oil, takra, lamp or salt. For harvest depends upon seed."

This advice is based on the fact that the germinating power of seed is lost by acid and salt solutions and retarded by fats. The importance of seed selection was so clearly understood that Manu and others applied the principle to their theory of eugenics. In the 9th and 10th chapters Manu discusses the question and states that "some consider the seed most important, and some the field (including soil and environment), while

others think that both are equally important. But the fact is that seed does not germinate in an alkaline soil and no plant grows in a fertile soil without a seed. It is therefore clear that both good seed and good soil are necessary for fine result. But if a choice is to be made, it must fall on good seed." In other words seed is more important than soil and environment, and the best result is obtained when both are good. These are exactly the conclusions of modern eugenists and scientific agriculturists.

As to the methods of preventing impoverishment of soil, Parāśara says that

"cowdung is the $S\bar{a}ra$ (essence) of soil, and therefore to be applied to it. For though paddy may grow without the manure, it will not be fruitful. Low lands (bila) need no manuring."

In this connection we should remember that the natural fertility of soils differs a great deal, and that Indian soils are as a rule poor in nitrogen and humus due to their washing away by rain water, and therefore more benefited by farm-yard manure than any other. In ancient village economy farms were situated close to homesteads, large herds of cattle grazed on them. Every village was surrounded by pasture land, beyond which lay the fields for crops. There was another fact of considerable importance. There were oilseeds which were of course not exported. But the oil cakes were not directly used as manure. A part, probably of tila and other edible seeds, were eaten as food by the poor, and the greater part went to feed the cattle. The cow-dung was thus richer thereby, and may be rightly called the essence of soil. The cakes were undoubtedly utilized in the most economical way, the same quantity feeding both the cattle as well as the land one after the other. The scrupulous cleaning of cowsheds as enjoined by Parāsara resulted in further enriching the cow-dung manure by the urine of the animals. Then again the lands were used as public latrines and carcases of dead animals thrown at a place near by, and there were none to take away the bones for export. Add to these the fact that there was more land than could be cultivated every year, and the system of fallowing was common. In Yuktikalpataru (11th century) it is stated that

"A man gets exhausted if he has to work continuously without rest, even as land does if crops be raised from it year after year."

We have no data to form an estimate of outturn, but there is reason enough to support the popular belief that it was heavier than what it is now. Kautilya tells us of fish and bone manure, and horticulturists used various kinds of composts.

Arable lands were classified in various ways. The Aryans living in Northern India had better experience of ushara land, "Alkaline soil." The classification into barren and fertile, high and low, does not require much intelligence. One of the oldest classifications appears to be into those lands in which crops had to depend entirely on rainfall (devamātrikā), and into those which were inundated by, or could be irrigated from rivers (nadīmātrikā). Western Bengal is of the former class, and crops sometimes fail. Eastern Bengal is fortunate in being both, and crops never fail. Kautilya classified tracts of country according to annual rainfall, the maximum being in the Western Ghats and the Southern borders of the Himalayas, and minimum in deserts. The lands were also classified according to crops which could be successfully raised on them.

As to tillage Parāśara writes that

"ploughing should be carried on by healthy men with healthy bullocks. No spot of the field should remain untilled. Ploughing once only is something, twice better, and five times gives the best result. Ploughing done in Māgha yields gold, in Phālguna silver, in Chaitra copper, in Vaišākha paddy as much as seed used, in Jyaishtha earth, in Āshādha mud, and in Srāvaņa nothing."

Here we have the whole theory of tillage in a nut-shell

applied to practice and our cultivators have been following it ever since. They do not know the science, but the best among them are proficient in the art of agriculture which really matters.

In some cases they have been blindly following the letter of the Sastras and performing ceremonies as a matter of routine. For instance, the ceremony of planting Sara reeds (Saccharum arundinaceum) at the end of Aśvina on the north-east corner of each plot had the object of erecting a temporary wind-break at the time of the flowering of paddy. It is stated in Parasara that

"the flowers remain either barron or produce unequal grains without a plantation of Sara."

For we know that paddy is wind-pollinated, and strong breeze carries far away the pollen from one field to another in a wasteful manner. Much of the fertilizing pollen is lost, and "unequal grains" are the result of crossing which is not desirable. The end of the month of Asvina was the time of change of wind direction.

The Vedic Aryans, we are told, employed horse and bullock in their plough, the former evidently during dry seasons only. But it is surprising that horse ceased to be yoked to the plough, and bullock became the only draught animal. It is a remarkable fact that the number of horses in our country has gone down enormously. Parāśara both in his Smriti and Krishi considered the keeping of a pair of bullocks for each plough as equivalent to slaughter, and even two pairs as cruelty. It is to be remembered that Brahmans were allowed to encroach upon the occupation of Vaiśyas as farmers and bankers. Probably the recommendation to maintain four pairs of bullocks for each plough was intended for the Brahman cultivators. Thus each pair would work not more than three hours a day.

The instruction as to number of bullocks is found also in Atri samhiti (218), Agni Purāns (Ch. 152), Sukraniti (IV. 8).

A still larger number is mentioned in the Yajurveda. We may therefore conclude that ploughing was effectually carried on. The injunction also shows kind treatment of cattle which thus appears to have the sanction of ages. Parāśara lays down strict rules regarding it. He recommends $7\frac{1}{2}$ ft. by $7\frac{1}{2}$ ft. as the floor space per head.

"The floor should be hard and clean, free from mud and even dust. The cattle should graze in the morning and evening, and should be given at home straw and gunda (Kunnā in Bengali)."

Kautilya has devoted a whole chapter on the keeping of cattle, and enumerated with quantities of each of the various food stuffs given to them. These include grass and straw, oilcake, boiled barley or 'māsha' pulse, bran, salt, raw sugar, and even milk, 'dadhi,' ghi or oil, and flesh. It is apparent the feed and care were for a suitable breed, unlike the pigmy of Bengal. Brihat Samhitā and other books have chapters on points of good breed. And well might the owners take pride in the stock of their cattle, and institute a 'Go-parva,' a ceremony observed in the month of Kārttika, when the best bulls and cows were decorated and taken round with music as exhibits. India considered cattle as wealth, and even Duryodhana, the wealthy ruler of Hindustan, was tempted to fight a battle for the herds of the King of Virāta.

The plough appears to have retained its form since the Vedic times with minor modifications in its parts according to the genius of the people of the different provinces. The essential part is the plough-share which was in the Aryan plough lance-shaped, and it is still the shape and often compared with the leaf of the Asvattha tree. The shape and size of the plough-share of the Indian ploughs have often been the subject of criticism. But the utility of deep versus shallow ploughing depends upon a variety of circumstances, for instance, on the nature of the soil and sub-soil, crop, season, manure, etc., and it is hazardous to pronounce judgment

off-hand. There are plough-shares consisting of a pointed piece of flat iron, one and a half inches wide and a quarter inch thick, side by side with broad and lance-shaped shares. there will be found sufficient and scientific reason for the choice of the former for soils where the latter would be out of place. Another example of adaptability to conditions is found in the implement called 'Moi,' Sanskrit 'Madī,' which has been wrongly rendered in English as a ladder. The ordinary form consisting of a pair of half bamboos with stays to keep the pieces parallel and apart may be used as a ladder, but is in reality a leveller. In many places the 'Moi' is a piece of timber of rectangular section, and quite suitable for soft loamy soils. For the uplands of Bankura, the soil of which is gravelly and contain pieces of quartz, the 'Moi' is made of a pair of planks inclined upwards towards each other and kept in position by a few ties. The object is two-fold. It levels the ploughed-up soil, and collects the stones which come up between the planks. These are thrown away when the space between becomes full. Parāśara does not describe his 'Moi,' but simply states the length which was about 14 ft. Evidently his fields were large, and his 'Moi' was of the usual type. He mentions another implement, 'Viddhaka,' 'bida' in Bengali, the Indian harrow, which is widely used. Deccan possesses a series of implements, probably the invention of the early Dravidians, many of which are unknown in Northern India. Agricultural implements like our household furniture are the result of various causes, and the law of the survival of the fittest is not only true in the organic world but also in industrial machinery.

Agriculture in the Tropics is more like gardening than farming, and the question of artificial irrigation has always been of supreme importance. The Rig-vedic farmers, we are told, constructed channels for irrigation from wells and probably also from rivers which rose on account of the melting of the Himalayan glaciers in summer. Artificial lakes for storing

rain-water such as are common in the south were of course not to be thought of in the western Panjab, where the annual rain-fall is small, air dry, and summer temperature high. Probably canal irrigation by constructing a permanent weir across a river was not known in ancient times. But there was another method, though possible only in places where the land surface is close to a hill or undulating, and a remarkable example of this method exists in a dry part of the District of Bankura. It is a canal 16 miles long for storing surplus rain-water from the upper basins. It is associated with the name of Subhankara, the celebrated practical mathematician of old though it was his title like the title, Khanā. The canal is known as "Subhankarī dānṛā," Sanskrit 'daṇḍa,' from its resemblance with the trunk of a tree with branches, the distributaries. It is a case of remarkably accurate alignment over a wide tract.

In the Rig-veda there is mention of a machine 'asmachakra' for lifting water. It was a wheel made of stone, and water was raised in a pail by means of a leather strap. From this it is difficult to make out the device. There was 'drona,' a sloop, but it is not clear what the size was, and whether any lever weighted at one end was employed to lift the 'drona.' In this form it has been in use, and within its limits is a highly efficient machine. There was 'araghatta,' but I do not know when it was first used. It is a contrivance for lifting water from wells and lakes by working at 'ara' or spokes. It was probably the same known as 'ghati yantra' and 'udghāṭana.' The latter consists of a drum-shaped wheel turning in a vertical plane over water, round which goes a pair of endless ropes with 'grata' or earthen pots tied to them at equal distances. The wheel has spokes at one end, and is worked like a capstan. It has been known as the Persian wheel and is a highly efficient lift as proved by its imitation in iron in the name of chain and bucket pumps. It is known also as 'ghata-chakra,' and the 'asmachakra' of the

Rig-veda was probably this, the stone wheel preventing slipping down of the loaded pots which are always on one side. It is worked also by bullocks, the power being transmitted by a crown and spur wheel made of wood. The 'ghar-ghari' of Bengal and other parts of India is a pulley and bucket arrangement as well as the wheel and axle, and used for domestic purposes. The pulley and rope gave rise to the 'mote' of Northern India which is in use for irrigating fields, the rope being drawn by bullocks. There is the 'tera,' the 'tiryaka yantra,' or the swape, the weighted end of the pole overbalancing the bucket. In this also Madras differs and has 'paicotta,' which is a 'terā' but worked by trampling along the pole and therefore requires considerable practice. Kautilya mentions two machines. One is 'udghāta' as mentioned above, and worked by bullocks for raising water from rivers, lakes and wells. The other is 'sroto-yantra,' probably some water-driven water-lift (see infra).

The almost infinite variety of climate and soil of India together with natural crossing of field crops and selection of seed by cultivators during ages has evolved a large number of distinct races, and, in some cases, varieties of our food grains of immense economic importance. Taking rice, we find that it can be grown in some form or another throughout the year. There are four groups, named according to the season of harvesting, such as 'graishmika,' the summer, 'vārshika,' the rainy, 'sārada,' the autumn, and 'haimana,' the winter. The ancient medical writers as well as Kautilya did not clearly distinguish an autumn class, the 'laghu dhanya' of Bengal, probably on account of their residence in Upper India where the meteorological conditions are not exactly suitable for moisture-loving paddy. They recognised three classes, viz., shashtika, ripening in 60 days in summer, Vrīhi of the rainy season, and Sāli of Some considered the first two classes as one. It is well known that the same seed does well enough for both the crops, and the Vrihi of Vedic literature may be called summer paddy.

The climatic conditions of the west and east parts of the Punjab differ a great deal, and rice became an important crop when the Vedic Aryans had come to occupy the land of the "seven rivers," 'sapta-sindhu' where flooding took place and irrigation became possible. The only class which could be cultivated was Vrīhi, and in some parts shashtika. The original wild form was called 'Nīvāra,' 'Uridhān' in Bengali, which was considered by the fastidious as "pure," since it was not the product of cultivation which was often accompanied with destruction of insects. It is remarkable that the wild variety contains more protein than the cultivated forms. It is, however, surprising to note the innumerable forms that are met with in India. In the Indian Museum have been collected about 5,000 forms, and Sir George Watt observes that

"These are probably not all distinct, but even if halved, the number would still be sufficiently significant of the vast antiquity of the cultivation."

He was practically compelled to doubt the opinion of the Vedic scholars who would have us believe that rice was unknown in the Rig-vedic period. Indeed if there was no rice crop it becomes difficult to understand why the Rishis prayed to Indra, the thunder god, for rain. The word, dhānya, meant food grains including the pulses and oil-seeds, and the most important of them would naturally be known as the Dhānya.

Some of our cultivated crops have been introduced within the last two thousand years. Wheat, though introduced long Cbefore the hristian era, did not attain its importance until after it. It was long known as 'Yavaka,' a kind of barley. It was the chief food of the 'mlechchha,' 'the barbarians,' perhaps the Greeks and the people living outside India, and received the name, 'mlechcha-bhojana.' The Bengal grain (Cicer arietinum) known in Sanskrit as Chanaka and also as Hari-mantha came to be an Indian crop about the beginning of the Christian era. Both the names imply that it was horse-grain. Probably, it is

not indigenous in India. The 'Arhar' pulse (Cajanus Indicus) was introduced about the 5th century. The names, 'āḍhaki' and 'tuvara' given to the two varieties of the pulse denoted the alum-bearing clay of Surat, and it is surprising that the same names were employed to denote the pulse. The plant is believed to be a native of Africa, and the seed was probably brought to Surat by Arab merchants. The Bajrā (Pennisetum typhoideum) was introduced about the 16th cent., and maize (Zea mays) only two hundred years ago.

The cultivation of sugar cane in India is as old as rice. The Rig-vedic Aryans had the cane, and possibly the family name, Ikshāku, had connection with large plantation. Apparently the cane was mostly chewed only, and sometimes pressed and the juice used as drink. The idea of drying up the juice over fire came later, and the earliest known product was 'gula,' or 'guda,' a ball. In Bengal it is known as 'bheri 'or 'bheli,' from its form resembling a kettle-drum. There was no attempt at crystallization. In course of time the next stage came, when crystals were allowed to form, culminating in the production of 'sitopala,' white crystals like rock crystal. A thoroughly scientific classification of the products of manufacture will be found in our medical works. It is also interesting to note that while only two varieties were known to Charaka, the number had increased to twelve by the time Susruta came. Among the latter's twelve there was one called 'tapasa,' evidently the wild ancestor of the modern forms. It is a remarkable fact there is still a variety of cane known as 'Uriākh' in the north-west of Bengal which flowers freely, and the cultivators use the seed for propagation, the adjective, 'uri' meaning wild, as in 'Uridhan.' One of the twelve varieties of Susruta was 'paundraka,' or 'paundra,' the same as 'paunda' and 'puñri' of our cultivators, undoubtedly the best of the indigenous canes. The commentators of Amarakosha tell us that the variety is so named because it grew in the country called Pundra, or Northern Bengal. It seems the country derived its

name from this fact just as the name Gauda from 'guda.' The people who cultivated the cane were known as Paundra.'

Kautilya noticed that the cultivation of sugar-cane involves trouble and expense. The difficulty was overcome by co-operation. The cultivators formed a 'grantha' or 'knot' or club among themselves both for the purpose of cultivation and manufacture of sugar. Co-operation was resorted to whenever the individual peasants were unable to meet the wants separately. It is known as 'gāntā' in Bengali, and is not at all a new idea recently introduced. The share-produce system of cultivation so common in our country is a form of co-operation.

The peasants had their periods of relaxation and rejoicing. The ceremony of first partaking of the new rice, "navānna," the fruit of their toil in the sun, rain, and mud, the much coveted blessing of God was attended with joy which only those who find their work done to satisfaction can feel. Sometime in the month of Pausha before cutting the ripened paddy they would all go out on a picnic, and after bath put on new clothes, wear garlands of flowers and partake of a common feast. They would bow to Indra, the Rain god, in gratitude, and make merry with music and dancing. This festival has probably been handed down from the Vedic times, when it was known as agrāyana, but has unfortunately lost much of the sense of corporate life within recent times.

Allied to agriculture there was horticulture, and the science was known as $Vriksh\bar{a}yurveda$, the science of the life of trees. Krishi-tantra was the science of agriculture. Sukrāchāryya regards horticulture as an art, 'kalā,' like agriculture and manufacture of 'guda.' He makes a clear distinction between $Vidy\bar{a}$ and $Kal\bar{a}$. According to him, a $vidy\bar{a}$ requires words to express it, while a $kal\bar{a}$ can be learnt and practised even by the dumb. A $kal\bar{a}$ consists in making new forms. Thus he restricts the meaning to the employment of things to answer some

The reader is referred to my paper on Sugar Industry in Ancient India, J. B. & O. Res. Soc., Dec. 1908.

special purpose, as opposed to nature; and to skill in accomplishing it, as opposed to science. He states that horticulture consists in growing, propagating, planting, etc., of trees. Gardening was made a pious act in our country, and Purāṇas had therefore to deal with the selection of sites, choice of trees, planting and cutting them down. A careful study of the trees enumerated therein may lead to the localization of the Purāṇas. Vāstušāstra has also to tell us the names of trees which we should plant near our dewelling houses, and Arthasāstra of those which are fit for roadsides and outskirts of villages and those which are of economic importance. And since the laying out of a garden must be commenced on auspicious days Brihat Saṃhitā and Agnipurāṇa have each a chapter on gardening.

In a hot country like ours plants require watering in hot seasons, and this consideration led the ancients to choose banks of ponds and rivers for orchards. Soft soil was of course considered the best. The first step was to plough it and grow a crop of sesamum in order to kill the weeds. Among the means of propagation, there were seed, root-stock (kanda), joint or node (parva), and stems $(k\bar{a}nda)$ in general, including cutting, layering, and gootee and grafts. Gootee or Gula is a specially Indian means, kāndaropa, so called from the ball of clay applied round the stem for striking the root. The method of grafting was confined to inarching (sankrāmaņa, adhiropana), the surest method and universally employed in our country. Budding is resorted to only in the propagation of jujube, but was perhaps unknown to the ancients. There were three seasons for planting, unbranched cuttings $(k\bar{a}nda)$ in winter, branched in autumn and the large ones in the rainy season. The best distance between large trees was 30 ft. and the minimum 18 ft. We are told that

[&]quot;trees planted close to one another do not bear much fruit since they touch one another, their roots get mixed up and they become diseased. They are attacked with disease also when they are exposed to severe cold, wind and the sun, leaves become yellow, branches wither up, sap exudes,

and there is no growth. Pruning and paring of the affected parts and application of a paste consisting of 'vidanga' (Embelia, the vermicide), ghi and pond clay on the cut surface and watering with milk are the remedy."

Fertilizers consisted of the dung of goats, sheep and cattle and flesh rotten in water. Varāha, Sukra and Agnipurāna prescribe composts made of various substances such as pulses. sesamum, barley, goat's and sheep dung, fish, flesh of cattle and hog, fat, etc. Kautilya advises us to dig a trench round the tree. burn the inside soil and fill it with bone and farm-yard manure. This treatment, according to him, is necessary at times to make the tree fruitful. In another place under Vāstu lakshana, Agnipurāna prescribes other fertilizers (dohada), such as cold fish water for mango, salt water for date and cocoanut palms, and 'vidanga,' fish and flesh water for all trees. As to watering. the instruction is to water both in the morning and evening in summer, every alternate day in winter, and in the rainy season when the soil becomes dry. Such in brief were the gardening operations and as they were based on experience we have nothing to add to or modify them. But it is surprising that oilcake was not used as a manure. The present knowledge of agricultural chemistry has enabled us to make composts with materials other than barley, pulses and other foodstuffs. It is also surprising that mango, perhaps the best fruit of India, was not specifically noticed by Varāha. Either the older book from which he compiled his information did not contain reference to the tree, or its fruit did not attain its present excellence. But having regard to the number of varieties now available, we cannot think that they have been evolved within a short time. The mutual influence of the stock and the scion is imperceptible. But this together with careful selection and cultivation for ages could have been the only way. Another fact which our nurserymen may profitably learn is that jack-fruit tree used to be propagated by means of stems, either by cuttings or gootee. Since the ancient times the number of our fruits has increased,

and custard apple and guava have become wild, and ananas and papaw very nearly so.

Agriculture cannot be carried out without some subsidiary arts. For instance, take the plough. It requires the services of a carpenter to make the wooden parts, a blacksmith to make the ploughshare and the cutting tools of the carpenter, a tanner to supply the leather strap (yoktra) and a rope-maker for the rope to bind some of the parts together. The smith is dependent on the manufacturer of iron who again is assisted by a host of men for collecting the ore and charcoal and limestone. Yet the use of iron dates back for thousands of years, and in India long before the time of composition of the Rig-veda. Loha was the name for metals, and Lauha, the metal, was iron. Again, food cannot be cooked without pots, cloth cannot be obtained without spinning and weaving, and so on. Indeed if we peep into the house of a poor peasant of to-day, we will be astonished to realize how his bare necessaries have been supplied. Sukrāchārya enumerated 64 arts, 64 just to make up the recognized number, and left a lot more in despair. For he says it is impossible to name all.

The wants were, however, few in villages, and every important village was self-contained in respect of the bare necessaries of life. There were the potter, the blacksmith, the oilpresser, the weaver, the washerman, the barber, the tanner, the bamboo wicker-maker, the drummer, the priest, and the physi-Of these the smith, the potter, the barber, the washerman and the tanner used to receive as wages, bali, an offering in the shape of a number of sheaves of paddy at the time of harvest. Kings also received annual bali, usually one-sixth of the produce for his services in maintaining law and order. These men were thus the common servants of a village. and the amount of bali each received was determined ploughs employed for by the number of which smith and the tanner were responsible, and by the number of adults which the others served. Bali was not cumulative, and

the servants and, I believe, the kings also could not claim it if the paddy crop failed. The king received a share, and it was therefore his interest to look to the increase of outturn. In the Mahābhārata (Sabhāparva, Chap. 5), the Pāndu king is advised to dig ponds and lakes so that agriculture may be independent of monsoon, to see that the cultivators have enough food grains and seed, and if necessary to advance them money. In Kautilya and Sukra similar instructions to kings are found. The land belonged to the state, but was thus cultivated on share-produce system. Those of the villagers who had no cultivation, had of course to pay the village servants, grāmabhritika, excepting the smith These received an allowance called Viti, corand the tanner. rupted into birā in Bengali, and literally meaning a bunch of betel leaves. This was, like bali, paid in kind, but fixed in quantity, and since this could not be realised from the field, it did not lapse. This system of co-operation was sometimes extended to other concerns of life. For instance, the village physician was held responsible for the fitness of the cultivator throughout the year in consideration of a bali granted to him.1

Every village had a council of its own, known in Sanskrit as panchaka, and in vernaculars as panchāyat, literally a body of five, and whether it was an established council or not, panchajana, five persons are even now required to settle a dispute. The number of members of the village Council, however, varied, but probably did not exceed ten. The members were elected when the village was formed, on account of their ability, and integrity and usually from the higher castes. But if the village contained any preponderating lower caste, the latter had the right of election. The descendants of the families senior in age inherited the honour and privilege unless disqualified by reason of some incurable and infectious disease like leprosy, imbecility, or continued absence from meetings of the Council. Such being the origin and constitution it was not uncommon to find in the Council men ignorant of the alphabet of the language,

The two terms 'bali' and 'viti' are sometimes used one for the other.

representing a low caste and sitting, of course on a separate seat, along with Brahmans and other high castes in the Council. There was, however, a marked difference in the number of members from the lower caste, however predominant it might be. The number was generally one. The Hindu ideal was always against mob rule by mere strength of number.

The village Council had enormous power. It administered justice, inflicted punishment on offenders against dharma or social morality, kept the village roads, drains, cremation ground, public temples, etc., in repair. The Council would raise subscription for any public function, and its decision was law. No social ceremonies of any family could be performed without its assent, and it was the duty of the Council to see that they were celebrated according to custom. The most terrible punishment was that of excommunication, and however defiant and relentless the attitude of the guilty might be at first, he had to bend his knees before long. The public opprobrium as expressed through the Council, the refusal of the barber and washerman to serve him, the aloofness of his caste-men from all domestic ceremonies of the unfortunate man were more terrible than imprisonment in jails. There was occasional corruption, but if the member suspected of this practice was repeatedly found guilty of the offence he was brought to book, and either fined or in extreme cases deprived of his seat. As a rule, justice was impartial and truth carefully ascertained. And it was not difficult to find out the truth, for it was impossible for a witness to tell a lie before those who knew him well.

The village servants and labour belonged to the Sudra class. But it must not be supposed that any one of the higher classes could oppress with impunity any of the lower. For the Sudra class being divided into castes was protected by the caste organisations, 'gaṇa,' which were in this respect trade guilds. If any village servant had a serious grievance against any one of his masters, and if the village Council failed to redress it, he could move his guild. The elders of the guild would meet, and, if

convinced of the truth of the allegations, set in motion the whole machinery to punish the offender by refusing him service of any of the caste living within the jurisdiction.

There were villages where artisans following the same trade would aggregate and form 'nigama' or trade centres. There they lived not only as members of one caste but also of a trade guild, 'srenī.' The headman, probably the most skilful at one time, the 'mahājana' of present times, was the banker for all. He would advance money, supply materials to them, take the finished products on payments of fixed wages for each piece and sell them on his own account. If, however, he treated any unfairly, the latter had his redress from the guild, socially as well as economically. Thus there were safeguards for the protection of individual artisans, and appeal to King's officers became seldom necessary.

Unfortunately the time-honoured institutions are fast dying out, and cannot be saved. I have drawn the picture from my own observation made two generations ago. Within the last generation they have disappeared from most villages, and it is impossible to revive them. The simple village organisation was the chief feature of India's social dharma which no king would venture to violate.

All handicrafts require the employment of tools, and the most useful tool of the Indian artisan is his fingers, and sometimes his toes also. He possesses very few tools, and these few are as simple as serviceable. Take, for instance, the drill of the joiner. Nothing can surpass it in usefulness and in simplicity of construction. It can be employed almost anywhere to bore a hole through. Take, again, the carpenter's Vāsi, the word occurring in the Rig-veda. It is both an axe and a hatchet, a simple turn of the blade makes it one or the

^{&#}x27;See Local Government in Ancient India, by Prof. Radhakumud Mookerji, and Corporate Life in Ancient India, by Prof. Rameshchandra Majumdar. Both the authors bave assiduously collected all available data from ancient records and inscriptions. See also Fiscal Administration under the Early Colas, by Rao Sahib H. Krishnashastri in "Bhandarkar Commemoration Volume," 1917.

the other. Those who have witnessed our Indian jugglery and had any opportunity of comparing it with the Western have no doubt been struck with wonder. But the effect appears miraculous when we compare the innumerable devices employed by the Western and their absence with our Indian. The two schools of Indian jugglery, the Bhānumati and Bhoja, are fit examples of perfected simplicity with wonderful results.

Take again the homely spinning wheel, the 'charka,' whose praise is sung by no other than Mahatma Gandhi himself. But I doubt if he has adequately appreciated the inventive genius exhibited in the machine. It has a remarkable history of its evolution. The Vedic Aryans did not know the use of cotton as a raw material of cloth. In fact cotton appears to have come into use not more than 2,500 years ago. Silk is the only natural stuff which does not require spinning. This also was unknown to the Vedic Aryans. They had cured skins and tanned leather, and wool. The latter requires spinning, and, I suppose, it was spun by women with a hand spindle, tarku. The bark fibres of 'atasi,' flax, Sunn hemp, and Cannabis hemp, were discovered probably at first for rope. But thin long fibres could be easily and rapidly spun into yarn with the hand spindle, and did not call for the invention of the charka. Cotton, however, consists of short staple, and spinning with a hand spindle is a laborious and slow process. The necessity for multiplying motion was felt, and charka was the result. The evolution to the present form must have taken years, and the variety of forms still prevailing in the different provinces, with due allowance for local taste, shows that it has not yet passed the stage of trial. Another reason for considering the charkā to be rather late in invention is found in the name by which it is known in the different languages. The name charkā is undoubtedly a corruption of Sanskrit 'Chakra,' a wheel, 'Kartana chakra' a spinning wheel. This is the name in Northern India, while in southern India including Orissa and Bombay it goes by the name of 'arațā,' 'ārāṭā' or 'rātā,' words

derived from a common source probably Sanskrit 'araghatta,' the Persian wheel, so that while the Northerner saw a wheel, the Southerner the spokes of a wheel! The greatest cottage industry was that of spinning, and since weaving consumes for a piece of cloth the labour for a large number of hours every home had several wheels at work.

The weaver's loom is another example of a machine in which simplicity of parts is combined with efficiency. That India had a loom though in a rude state, as remote in antiquity as the Rig-veda, points to its independent origin. It is not described in the Rig-veda, nor in any book that I know of, but the names of a few parts are given incidentally in the Veda. was difficult for me to form an idea of the loom. But a glance at the loom used by our blanket weavers was a startling revelation to me. We have still the Aryan loom in use! It is almost the same as was used in villages for weaving gunny. Verily India knows no change, yet the same Aryan loom served as the starting point for adaptations for weaving varn and silk with marvellous success. For nature may supply the finest fibre in silk, and it may be possible for nimble fingers to spin yarn as fine as a spider's web, but it is almost inconceivable that the same may be woven in a loom with artistic designs to boot. No less praise is due to the washerman who could handle the fine fabric which was sometimes embroidered and often dyed, and yet preserve its even texture and colour. For it was the duty of the 'Rajaka' not only to remove the dirt adhering to cloth but also to restore the original colour. Women's dress was invariably dyed and often printed. So also the dress of the majority of men. Sense of colour and harmony was innate to the Indian who could not tolerate pure colours, far less pure white, which become painful to the eyes in the glare of the tropical sun and clear atmosphere. The tone of the colour was subdued, and the result though bright was pleasing and sombre. As a practical people Indians have always valued fast and permanent colours, and the art o

dyeing was perfected to produce them equally successfully on the four classes of stuffs. It reached its acme when fine muslin was dved one colour on one side and another on the other. We are apt to think that the primitive methods did not yield satisfactory results. On the contrary in most cases they were better, though slower, and many a process of old is still followed after slight modification. For example, when the Vedic Aryans wore skins, these were certainly made soft and pliable before use. They were very probably treated with animal fats and smoked, and the word 'vastra' cloth is derived from the same root as 'vasā,' fat. But it is remarkable that a British patent was taken in 1914 for converting hides and skins into leather by treating them with brain and smoke. The method of oiling and smoking is known to primitive people. and India was not singular in its discovery. But there were others in this line the credit of which India may justly claim. as for example dyeing cloth Turkey-red and Indigo-blue.1

Among heavy machines for heavy work there was the 'Kuttaka yantra,' well known as Dhenki for husking paddy. It is as old at least as Kautilya, and gave its name to 'Kuttaka vidhi,' the method of solving indeterminate equations in Algebra. The 'udukhala musala,' the wooden mortar and pestle of hoary antiquity still survives, because it can be worked by one man or woman. The hand mill for grinding corn, the 'rochaka yantra' of Kautilya was worked by bullocks, and, if we are to believe his commentator, also by water power. The water-mill in its present form is exceedingly simple and does not require constant attendance. A shallow stream of water is dammed across, leaving a gate at one end. The pair of stones is placed in a platform over the gate, and an undershot water wheel under it. The waterfall gives the power which is transmitted to the mill by means of a cog-wheel. The 'araghatta' was, I think, a current-driven water-lift, consisting of a series

A detailed account will be found in my paper on the Textile Industry in Ancien India, J. B. and O. Res. Soc., June, 1917.

of earthen pots lashed to the periphery of a wheel revolving in a stream. The pots were so inclined to the axis that they dipped and filled while in the stream, and emptied while passing a trough placed above the shaft. This is an ancient device, and was probably the 'sroto-yantra' of Kautilya. Unfortunately there are no descriptions of the machine, and instances of giving the same name to different appliances are not rare. There is, however, no mistake about the oil-mill, variously named as 'taila-chakra,' 'taila-pidaka' and 'ghāṇa.' The parts of the machine are many, and transmission of bullock power is effected by friction gearing through ball and socket bearings. The invention of this complicated machine marked a distinct epoch in the history of our industries. It is as old at least as Kautilya, and was probably in existence long before him at the time when Manu frowned upon the 'Chākrika,' the oil-presser, partly on account of his employing bullocks for rotatory motion. India was long passing through wood age, and the people were fortunate that the mill had to be constructed of timber, and that the oil obtained was free from chemical action with iron. The cultivators of sugarcane were also equally fortunate that their pressing mill with spur gear was made of wood and did not impart iron to the juice to the detriment of taste and keeping quality of 'guda.'

India had, however, purest wrought iron and finest steel, and the specimens still existing in the shape of lintels, monuments and arms have been the envy of modern metallurgists. It is sad to reflect the gradual decline of the indigenous iron industry. The race of iron-smelters, the Lohars, has been almost extinct, and except in a stray family here and there in some remote places still enjoying the patronage of our Princes, the art of extracting iron from ores has been lost to the country. Similarly, the population of blacksmiths, the Karmāras, has been steadily losing ground. What a vast number was employed by kings alone for making armour and arms! How many workshops were there for making nails only, door fittings, locks

and padlocks! The present abnormal pressure on land is partly due to increase of population which has necessitated destruction of forests and conversion of village grazing grounds into lands under cultivation, but largely due to the dwindling away of the industries of old. Take the case of traffic. What a prodigious number of men found employment in carrying goods by land and by water! Think of the millions whose calling was the building of chariots, carts and boats! Steam-driven vehicles and automobiles are now penetrating the peaceful villages like hideous monsters of old. Yes, there has been speed. But, "why this hurry, my friend!" the Hindu would ask. "What is thy quest, and where is thy goal that thou runnest so fast?"

He would have refused to be reduced to a machine and wondered at the feverish haste of modern "business" which has no end. Yet he was not an idler and did not disdain riches. The Mahābhārata, the Dharmaśāstras, the Nītiśāstras, even the Ayurveda, all lay stress on the necessity and acquisition of wealth without which life becomes impossible. Manu tells the Brahmans to work for prosperity as long as life lasts and never to think that it is unattainable. But the key-note was different, and that changed the whole gamut of life. The practical side of a Hindu's life was so intimately interwoven with ideas of dharma that it might be regarded as a series of acts in its pursuit day after day, from birth to death. The thinkers of old recognized divergence of religious temperament of mankind and refrained from forcing acceptance of a particular creed or form of worship. Each one for himself, and none can give you salvation excepting your own exertion, is the dominant note in Hindu philosophy. The oft-quoted metaphor that all rivers, whatever their name and form may be, ultimately merge into the ocean, clearly expresses the attitude towards all forms of worship:

[&]quot;Each man for himself, and every one is pursuing the path according to his inclination (prakriti). None can oppose it. That is a law of nature."

The general mass of mankind is everywhere half-educated in varying degrees. It is for such men that a standard is set up, and it is for them that temples are built and dedicated to the purpose of worshipping some deity. These deities are as infinite as the universe itself which is the manifestation of One called variously by various people. Nature in India is of such varied character that it would have been a wonder had she failed to impress the sense of diversity on the mind of her people. A Vedantist, a Sannyasi, is not grieved at the sight of a man worshipping a material symbol. For he believes that forced growth is never beneficial to any creature. At the same time it is useful to remember that the word $p\bar{u}j\bar{a}$ has as wide a connotation as the word dharma and is often a way of expressing appreciation. A Hindu offers pūjā to his friend, to his guest, to a tree, a river, a hill, a cow, a horse, etc., etc., remembering how good the object of his appreciation has been to him.

Besides the pūjās there are acts of piety. Certain acts, such as sacrifice, austerity, hospitality are enjoined for the three higher classes only. These are ishta, intended for individual good, the good of the man who does the acts, and believed to lead him to heaven. There are other acts, called purta, intended for public good and believed to ensure, not heaven but, salvation of the man or woman performing them.1 These acts of pious liberality include dedication to the public of lakes, wells and ponds, temples and halls, gardens and parks. roads and trees on their sides, indeed all works of public utility. They are all free gifts, 'dana,' and satisfy the test of dharma which, according to the Mahābhārata, consists in doing good to all living beings (Sarvabhūtahita). There are others which benefit individuals such as the acts of benevolence to the poor, the famished, the sick, the decrepit and others who are in need of help. But there are special gifts, 'pratigraha,' which appa-

¹ Atri and Likhita Samhitā. Cf. also Agni Ρυτāņ (Ch. 209). Dāna is sometimes made a third class.

rently benefit individuals, but in reality the public, and rules and restrictions regarding offering as well as receiving such gifts have been discussed threadbare in the Dharmasastras, Puranas and the Mahābhārata. The true Brahmans, learned and great in moral and spiritual attainments, had alone the exclusive right of accepting them. It was a prerogative as sacred and based on the same principle as that of collecting revenue by kings for the state. The Brahmans were the thinkers, the educators, the torch-bearers of society and rendered free from anxiety for their livelihood practically by voluntary subscriptions under the garb of meritorious act. Every Brahman was not entitled to receive ' pratigraha' nor every one to offer any. This rule kept the standard of Brahman-hood high, and was a warning to those who led immoral lives or acquired wealth by unfair means. Manu forbids these Brahmans to accept a gift from kings other than Kshatriva because there was the chance of their being subservient to new masters. Some authorities went so far as to refuse all presents from kings even if they were Kshatriya, as much as from Sudras and out-castes. Rigorous were the rules of selection both of the donor and the donec.

Nothing could be more acceptable to the public in a hot country than the gift of water in the shape of lakes and wells. But Manu forbids the Brahman to bathe in the water if they have not been consecrated to public use. If there be no rivers in the locality, which are public properties, the Brahman will have to take out lumps of clay by way of excavation before he can take his bath. And terrible was the moral punishment when the neighbours refused to use a pond excavated at a great expense. Even now in villages a man of self-respect will rather use the water of his dirty pond than have a dip in a better one belonging to another.

Dedication of temples served many purposes. The presence of a temple in a village and the sound of music which accompanied worship at least twice a day reminded the inhabitants of a duty they were apt to forget. The endowment in the shape of rent-free land maintained a family of Brahmans whose superior culture

imperceptibly raised the level of the rest. Teachers for village schools were also recruited from them. A village which did not contain at least one family of learned Brahman (Stotriya) was not considered fit for habitation. Attached to each temple, whether private or public, there was a flower garden. For flowers were the best offerings and required daily. But flowers gathered from a private garden do not belong to the worshipper and could not therefore be offered to the deity. A guest house was also almost always attached to every temple with sufficient endowment for extending hospitality to travellers. Hospitality is a virtue extelled in the Sāstras; and Manu says that

"" A mat of grass for sleeping, a spot for sitting, water for washing feet and pleasant and welcome words can never be wanting."

Besides gardens made over to the public, there was the pious act of planting trees on road-sides. It is stated that

"A tree planted is like a son and the tree-son should be taken care of like him. For it does good to the people in five ways. It affords shade to travellers, nesting place to birds, medicinal parts in root, bark and leaf to the sick, fuel to those who keep up fire, fruit to the hungry, and perfume to the air."

So, when Ahalyā Bāī had the road constructed which is known after her with trees on both sides, she did nothing extraordinary. It is to be remembered that to keep the lakes and wells, temples and gardens in repair was also a pious act.¹

One of the greatest gifts was the gift of learning, of books, of matha or residential college. Vedic education of the men of the three higher classes was compulsory on pain of degradation to the Sudra class. But the latter and the women had access to all knowledge save the Vedas. We can, however, imagine that a very large number of them did not receive literary education. It was mainly for them that public readings and recitation, were held. The Mahābhārata, which has been fitly described

¹ Of. Brihaspati Samhita.

as the fifth Veda, the Rāmāyana, which is bound to touch the inner chords of every human being, the Purāns, many of which are cyclopedia of general information, formed libraries in themselves, and readings from them were meritorious acts. When a pious lady appointed a reader, she would supplicate with all humility attendance of all persons she could approach. For it was her business, her good that she sought by enlightening the audience. Therefore she felt grateful to the people who assembled to hear the reading, while they on their part were bound to attend in order to help the lady in the fulfilment of her The names of Sūta and Lomaharshana and other readers (Pauranika) of old are now forgotten history. But those who had the good fortune to attend a reading fifty years ago will remember the scene, the calm dignity of the lady, the reverential spirit of the audience, the musical chanting of the slokas and their interpretation in vernacular by a reader proficient in the art of correct delivery, the atmosphere of sanctity with flowers and festoons of mango shoots around the pandal, all combined to make the occasion a thing to be remembered. The altered conditions of the times have now reduced the public to objects of charity who no longer ask for the credentials of the donor; the Railways and Steamers have robbed them of the romance and educative value of travelling on a pilgrimage. Ancient India did not encourage begging, whose motto was sarvam paravasam duhkham, "it is misery to be dependent on others;" sarvam ātmavašam sukham, "happy is he who is self-reliant." What was it that moved men and women to save a portion of their earnings that they might one day be able to do an act of public good or to undertake the long arduous and often hazardous journey on foot through unknown country and to wend their way from Haridwar in the Himalayas to Ramesvar at Comorin?

But there arise circumstances when we are unable to decide the right path. In the Mahābhārata (Karna parva) Srīkrishna explained to Arjuna what to do in such

cases. He said that in the Vedas, though authoritative, all the principles of dharma have not been defined, hence we have to exercise our judgment in many cases. One simple test is to consider whether the contemplated act is injurious to others or not. If it is not, it is dharma, and thus ahimsā was declared as the highest dharma. But the application of this principle may at times prove difficult, and the question was raised in the Mahābhārata and answered in the famous passage beginning with Vedāh vibhinnāh, "Different are the Vedas and Smritis, various their interpretations, and mysterious the nature of dharma. Follow therefore the path along which great many men have passed." This advice is of course not meant for those who are not in need of any, but meant for those who do not know which way to turn. It is the best and most practical advice that can be given and embraces every field of our activity. The path has already proved safe to many. The same advice has been given by Manu, substituting the word pitāmaha, ancestors, for mahājanah, great many persons, of the Mahābhārata.1

It is therefore necessary at times to remember what our ancestors thought and did.

JOGESCHANDRA RAY

¹ Sukra (v) raises the same question and asked how the conquest by king is dharma, while robbery is not. He recognises relativity of dharma, and defines it practically in the same way as the Mahābhārata,—what is approved by most people, bahabhīh stuta is dharma.

THE BODY IS PASSING AWAY

While swift hues gather in the flower and the tree,
And the bliss of happy life is a breath heavenly sweet,
With the cloud that roams wildly joy is set free,—
Rain joins in the sport with the patter of many feet.
There's a chain of bright life from the sun down to earth,
In which time never lost a single moment's worth,
When the stars commence their vigil to keep,
All the world's wonder into the eyes doth leap.
For the sky is still gloriously blue,
And the lily is still handsome and gay,
And while fresh is the morn and cool is the dew,
The body is passing away.

There's a soft beauty mantling the infant's fair cheek,
Where quick laughter gathers and rolls along and slips,
To it Life its large language of joy doth speak
In the sparkle of its eyes and the rhythm of its lips.
By the light of its hope earth trims her own lamp,
By the measure of its feet the moon times her own tramp,
By the sun of its smile we count all our gains,
And its love is a cure for our cares and pains.

And thus as we re-fashion the earth,
And still broaden the bounds of the day
With the lingering echoes of happiness and mirth—
The body is passing away.

While dawns a new sun a sparkle's lost from the eye,
And with the first breath of the returning year,
When roses waft their smell to the pearl-tinted sky,
The dull heavy tread of mortality we hear.
While of our busy days the fruit honest we reap,
And of our short-lived joys a pious memory keep,
When laughter from the face of deep thought tears the veil,
The self-sufficient years grow startled and pale.

While we talk with our friends as of old,
We miss the old manner free and gay,
For quenched is our cheer, few the hopes all told—
The body is passing away.

NALINIMOHAN CHATTERJEE

AWAKENED ASIA AND GERMANY IN WORLD POLITICS

T

Asia is the cradle of Humanity. In the past it has played the most notable part in human affairs. In short, it may be said that the major part of the history of civilizations is the history of Asian expansion and the contact of other peoples with Asia.

Without going into the pre-historic ages, we may say that the most important parts of the cultural and political history of Greece, which is the foundation of western civilization and political life, are the cultural contacts, commercial relations, political associations as well as political conflicts between Greece and the Asian states. The most outstanding feature of the history of the middle ages, which is often minimised by the historians of to-day, is the predominance of the Asian states and peoples in all fields of human activities. On the one hand, the commerce and wealth of Asia attracted the attention of the traders of the west, and on the other hand the march of the Mongols from the heart of Asia to the very heart of Europe, is probably more important than the Crusades.

Let us not forget that the invention of gun-powder, the mariner's compass and printing press, all of which, with greater developments, have revolutionised the history of human civilization, are the contributions of the people of Asia. It was the efficiency of the Mongol warriors (who ruled a vast portion of Europe) in the field of organized warfare, that made the western nations conscious of the necessity of improving their arts of warfare. It was the stories of splendour and wealth of the Orient narrated by Marco Polo and others who travelled in the Orient that spurred the adventurers of the West to seek

the sea-routes to Asia, which led to the discovery of the New World as well as improved methods of navigation and commerce.

The modern cultural and political history of Europe begins with the history of commercial and political expansion of the western nations and their assimilation and improvements of some of the contributions of the peoples of the Orient. At first, commerce and religious activities formed the principal factors in European activities in Asia; the political motive of the conquest of Asia by Europe later on became the dominant note in European expansion in Asia. This may be regarded as the repetition of what the Greeks of the days of Alexander tried to accomplish—the conquest of Asia by Europe. this connection it may be said that the real cultural history of the world is not merely the contribution of the West in the field of science and industry, but the assimilation of these contributions by the people of the Orient, and at the same time their (the people of the Orient) original contribution to the Western scholars, particularly German scholars, have done incalculable service by their efforts to understand and interpret oriental life and thought of the past and the time has come when the spirit and influence of the awakened Orient should be considered by the most serious-minded people of the West.

II

The political history of the last century and a quarter, on broad lines, covers three phases of the one and the same struggle. They are: (1) Extra-European expansion of the western nations by subjugating other peoples, (2) rivalry and conflicts among the European aggressors, because they could not agree to the division of their booty in the Orient and other parts of the world, and (3) the rise of the opposition of the awakened East against the domination of the Orient by the western powers, and the beginning of the struggle for the recovery of the sovereignty of the peoples of the Orient.

We may say that all the important European conflicts of the nineteenth century had their Asian backgrounds, which are far more important than the over-emphasised immediate causes in Europe. Great Britain's determination for the destruction of Napoleon was due more to Franco-British rivalry in India than any other factor. The traditional enmity between Britain and Russia, which has again flared up in the recent Anglo-Russian conflict, has its roots in the conflict between Russian expansion in Asia and British opposition and apprehension. The Crimean War, the Congress of Berlin, the Russo-Japanese War and the formation of the Triple Entente against Germany and Austria, have their Asiatic backgrounds. The Anglo-French rivalry of the nineteenth century was primarily due to the questions of colonies in Asia as well as Africa. It must not be forgotten that France's acknowledgment of British supremacy in Egypt, the gateway to the Orient, and British recognition of French rights in Morocco and Eastern Asia bordering Siam, were important factors in bringing about the Anglo-French understanding against Germany. Partition of Persia between England and Russia, absorption of Tibet and Afghanistan by England, and Mongolia by Russia, were the most alluring inducements for the Anglo-Russian entente against Germany. To British statesmen, particularly the late Lord Lansdowne, Earl Grey and others who planned and worked for the encirclement of Germany and her destruction as a rival, Germany's commercial expansion in the Orient and the Berlin-Bagdad railway was a greater crime than the growing strength of the German navy.

Asia was the determining factor in the World War. Without using the man-power, economic resources and strategic positions of India, it would not have been possible for the Entente Powers to defeat Turkey. Without an Arab revolution, Britain could not have secured a foothold in Turkey. Without Japan's entry into the World War, on the side of the Entente Powers, it would not have been possible for

Russia, at the very outset of the War, to use all the Russian forces, even those from Siberia, against the Central Powers. Furthermore, had Japan remained neutral, the Entente Powers, particularly the British navy, could not have brought about such a complete blockade of Germany. America's entry into the World War against Germany was undoubtedly the decisive blow which brought about the defeat of the Central Powers. It is certain that if Japan were not already a party to the World War against Germany and bound by the Treaty of London, not to make a separate peace, there was no possibility of America's entering the War.

It is an undisputed fact that rivalry among the western nations in Asia, was one of the primary causes of the World War; and it was Asian support that determined the final issue of the War. Since the conclusion of the World War, Asia is looming larger and larger in world politics. The Treaty of Versailles did not bring about real peace. Turkey kept up her fight for independence and she won the fight. The then prevailing Anglo-French rivalry in Asia Minor and the Anglo-Russian hostility in all parts of Asia, made it possible for the Turks to secure aid from France and Russia in her struggle against Greece aided by Britain. After the World War, British policy was to make Persia a virtual protectorate, but this programme was upset because through Russian support, Persia regained her sovereignty and to-day has an efficient government, which is trying to assert its position in world politics. Similarly, Afghanistan has secured her complete independence and is busy in organizing a military force which is causing serious apprehension among the British officials in India and London. Siam has completely recovered her full sovereignty through recent treaty negotiations. In China and India, the two largest and oldest nations in the world, far-reaching nationalist movements are passing through the stage of trials. In China the nationalists are demanding the abolition of all unequal treaties, extra-territorial jurisdiction, concessions and foreign financial and

judicial interference, infringing upon Chinese sovereignty. The Chinese nationalists, while fighting a civil war, have certainly inflicted a serious blow to the political prestige and economic supremacy of Great Britain in the Far East. One thing is discernable by all impartial observers, that Asia of to-day is not the Asia of a quarter-century ago, when the Western powers were quite confident of their perpetual control of Asia and even planning the partition of China.

III

Reassertion of the awakened Asia is the most significant phenomenon in world politics of to-day. This is characterised by some Western scholars as the "Revolt of Asia" against Western domination; and it is on the road to success. In this revolt there are three aspects: (1) revolt against the political domination, (2) revolt against supposed cultural inferiority and (3) the revolt against racial and social discrimination. Nations of Asia may have different interests, but they are all revolting against the limitations imposed upon their rights as human beings; and the leadership of the movement is now in the hands of Japan in the Far East and Turkey in the Far West (Near East), whereas India and China are going to be the determining factors.

To-day the Anglo-Russian conflict in world politics is tending to bring about a re-alignment of Powers all over the world. In this conflict, Asia is the bone of contention. Lord Birkenhead, the Secretary of State for India, in a speech delivered at Leicester on June 4, 1927, declared that the principal reason for the recent severance of Anglo-Russian diplomatic relations, is that the Soviet authorities have been plotting against Great Britain all over the world, particularly in Asia. The present ascendency of Soviet Russian influence in Asia, is due not to the spread of the Communistic doctrine

The Revolt of Asia, by Upton Close, published by G. P. Putnam & Sons, New York and London, 1927.

in Asia; because the philosophy of communism has no hold among the actual leaders of nationalist movements in Asian countries. The Russian programme is to increase her influence in Asia, not by territorial expansion but by securing Asian support and friendship by establishing treaties of neutrality and friendship. Russia has concluded such treaties with Turkey, Persia and Afghanistan and is not unmindful of securing Chinese and Japanese friendship. This policy has brought about a revolution in world politics and it is full of possibilities.

During the coming twenty-five years, all the outstanding world problems will be solved through Asia, with the aid of Asia; and no political calculations of first magnitude can be made without asking the question "Where will be the support of Asia in such circumstances?" It can be safely asserted that Asian nations will be inclined to support those western powers which will not oppose their political independence and aspirations. It is being asked by many Asian statesmen: "Which of the western nations might be genuinely interested in the cause of emancipation of Asia, including the programme of racial equality for the Asian peoples?" The western powers which wish to maintain their Asian colonies and dependencies by force and against the will of the people, can never enjoy full confidence of the Asian peoples; on the contrary, their professions of friendship will be looked upon with suspicion. Thus Great Britain, France, the United States and Holland, unless they give up their precious possessions in the Orient should not expect Asian support in the new order of world politics.

Of all the peoples of the West, the Germans, chafing under the army of occupation in the Rhineland, and dispossessed of their sovereign rights, should fully appreciate the moral and spiritual significance of the nationalist movements in Asian lands. Germany, as the outcome of her defeat in the World War, has been dispossessed of her colonies in the Orient; her geographical position, internal and external conditions, are such

as makes it impossible for her to start on a new anti-Asian imperialism. Germany's past anti-Asianism such as the "Yellow Peril" of the German Kaiser, originated in the desire of currying favour with Czarist Russia, bent on extending its territories in the Far East and also to please the British who were anxious to keep Asia under perpetual subjection. Under the new condition of things, with the exception of those Germans who believe that Gemany in all circumstances should follow the lead of Great Britain and America, the German people are opposed to any policy which will bring about hostility of awakened Asia and Russia. They realise the full significance of what is happening in China. where, the Germans having no extra-territorial rights, are not molested by the Chinese nationalists, on the contrary, they are being befriended in their commercial enterprises. Anglo-phil Germans and British propagandists are actively preaching the idea in Germany that to sympathise with the awakened Orient's aspirations and to remain neutral in the Anglo-Russian conflict, is not for the best interests of the German nation; but it is very significant that all the far-sighted German statesmen are interested in promoting friendly relations with all the nations of the East and the West. It may be that Germany by her international, cultural and political policies, will bring about better understanding between the East and West, on the basis of justice, equality and liberty.

TARAKNATH DAS

LIFE OF THE CELEBRATED SEVAGY 1

CHAPTER III.

Sevagy returns to Concao and what he did there.

With the Fortress of Rayaguer in his possession Sevagy considered himself more powerful than Idalcao himself, and, to recover what it had cost him, he set out, as was his custom, to plunder, and realising that in (28) the open country his spoils might cost him dear, he went through woods and bushes which he found convenient, for his men were brought up in He entered into the Concao and commenced his operations with the Decaes who inhabited it. viz. Lacomosanto. Queissoa naraque, Queisoaporuum and Raulosinay. The Decaes are what the Princes of Italy were when they paid tribute to the Emperor, for in the same manner do they all pay to the King Idalcao. All the above mentioned (Decaes) were neighbours to the city of Goa. Each one of them lived with great arrogance in small principalities and, as all the four combined did not possess a territory more than eight leagues in length and three in breadth, they made war against each other, till they confided in the mediation of the Subedar of Idalcao for the settlement of their disputes. The Subedar is, we may say, what the Vicar of the Empire was at the time referred to in Italy. He was commonly called there Visrey. This office was sold at the Court to him who gave most, and he did in his district what could be expected from this principle. They robbed, not according to law at all but without any, and when the complaints mournfully crossed the air (29) to the Court, the office was put to auction anew without any consideration whether its term had or had not terminated. Another (governor) came. and it was sometimes necessary to take arms against the first to get possession. And if victorious, he also mis-used his victory

¹ The first two chapters appeared in the April (1927) issue.

with tyranny and robbery, for when the King robs what can the subjects and the robbed do? When Sevagy arrived at these places, the first thing he did was to style himself as the Subedar not of the King but of his own. He made a long residence there and thus dealt out great justice, for the greatest [act of justice] was to rob these barbarians whom he plundered, and of restitution he ignored even the name. They then surrendered the lands. Who knows why they suffered such insults. He sacked Vingorla, a place where the Dutch had a factory. The factory was not raided for the Sevagis did not make their grimaces at the muskets. Then he attacked Banda that belonged to Lacomosanto who resisted for a while but soon retired in the great forest that saved his life, and Sevagy robbed Lacomosanto of his wealth that he did not take with him. He presently entered into the district of Quissonarqu (30) and Quessoparna. They offered great resistance, I think because they were more poor. for wealth seems to have an understanding with valour that where one presided the other should not stay. Sevagy suffered some loss of men but at last put them to flight, and here in the city of Goa we find them as miserable refugees. Raulosinav met with the same fate and made the same journey, and in Goa they all resided till Sevagy left for his own territories after sacking their lands and Manodlin, Uguris, Bicholim and Ponda. the northern parts he was already obeyed by all, and after these enterprises he was everywhere received with triumph. Only Rayapar where the English had a factory refused to yield. The English, however, confided in the protection that the Governor of the province had pomised them, and the Governor thinking that Sevagy would fly from the English muskets at Rayapur as he had fled from the muskets of the Dutch at Vingorla, had not been much disturbed in his sleep (had not been overwatchful) when Sevagy appeared and destroyed all, killed the Governor, and captured the English of whom the Factor and the partners (31) were suffering long imprisonment in the hill of Rayapur. Many of them died there, for water in English stomach on

Cacherin de lentinhas is the sure forerunner of death. Sevagy felt pity, and, as he thought that lack of exercise would kill them. he directed the governor of the hill to allow them more liberty so that they might walk about the hill within the sight of the fortress. They did so, sometimes they returned early and sometimes late until one day they fled; but not knowing the intricate roads of those confused woods they lost themselves, and when they thought they were far from the fortress they laid themselves down to sleep, and as they were tired they slept so heavily that the next day they woke very late and found themselves very near the fortress. They excused themselves (by saying) that borne down with the affliction of the prison and by oversight which was due to such long imprisonment, they had slept in that fashion. These explanations were generally credited, for there was no change in their treatment, nor were their outings prohibited, and they observed the forests better for their second flight. In this they had better (31) success, for knowing that Idalcao had for the second time armed himself against Sevagy and the army was within the territories of Rayapur, they boldly went out, and once out of the hill, they found the encampment at a little distance where they were welcomed and sheltered for the sake of the information about Sevagy which they supplied. From here they went to Chaul during the regime of Captain Antonio Galvao de Sa and thence to Bombaim after ten years of imprisonment, but they had the pleasure of depriving Sevagy of three hundred thousands pagodes that he had demanded for their Pagodes are coins of gold equivalent to five rupias ransom. and each rupia is approximately equal to a cruzado.

CHAPTER IV.

Sevagy continues his conquests, entering the territories of the great Mogol who sends his uncle Sexthagan with eighty thousand horse against him.

Sevagy became arrogant with his success against Idalcao from whom he had conquered so many provinces (33) and

fortresses. For his security in that kingdom he possessed the impregnable fortress of Rayaguer which had in it excellent water and was so abundantly provided with food that he had nothing to fear. He turned his thoughts to make himself so great (being already much feared), that he would have none to respect in the whole of Industan. As the greatest power in this region was the Great Mogol, he now desired to carry his arms against him, for the other kings would be undeceived (para que se desenganassem) when they saw that he slighted the greatest. He entered into his territories and conquered what belonged to the Great Mogol in that part as far as Upper Chaul, half a league distant from Lower Chaul, a Portuguese city. Upper Chaul was a great place inhabited by Mouros and Gentious, all rich merchants, and there were many weavers with the most curious merchandise. All worked hard and its great commerce made the land very prosperous. It was, however, an open place, for with the Portuguese as neighbours with whom there was a lasting peace, and as (34) the Idalcao owed allegiance to its king, it had no more enemies to fear. That Sevagy should dare to molest its king was not even thought of until he entered into the houses of the city and robbed all in their thousands. immediately laid siege to a castle (with a redoubt) where resided the Governor of the province who surrendered in a few days. Sevagy ordered that all Mouros who would not acknowledge his sovereignty should be put to death, and all who would should be pardoned. He at once ordered the construction of a Fortress in the place of the redoubt and provided for better defence of the country under him. The poor inhabitants, not having been assured of security, fled mostly to the city of the Portuguese of whom they begged shelter, but as they were so numerous and the place was not big (enough) they were permitted to live outside the ditch in the bare fields and the houses were so built that they could not serve as a signal if in any case fire was set to them. A great settlement called Camarahando was thus made where they lived from 1652 to 1667 in which year Sevagy

restored to the Great Mogul twenty (33) fortresses as we shall relate later on.

From here Sevagy passed to Biundim and Galiana, fourteen leagues to the north, all the way through the territories of the Great Mogul, destroying everything till he reached the above mentioned cities. He suddenly appeared in Galiana and robbed an immense amount of wealth for it was the home of great merchants. At the same time when Galiana was sacked he ordered an attack on Biundim three leagues from the other city where he repaired in person when there was nothing more to be got at Galiana. He remained longer in Biundim to work some wonders. He not only robbed what the inhabitants possessed but (also) great treasures of which they were ignorant. They were reasonably surprised that a stranger should dig from earth of which the oldest of them knew nothing even by tradition. The city subdued and sacked, Sevagy set to walk through the streets accompanied by many people who carried by his orders levers, pickaxes and many other instruments. Sevagy would stop at this or that house and pointing by hand, would order that certain parts of the walls should be dug and a few blows discovered big copper cauldrons full of gold both in coins and bullions. In this manner great treasures that were hidden and totally unknown were openly removed. Such burial of treasures is common in the Orient. I think the reason underlying this barbarous custom is due to the Pythagorian theory of transmigration of soul that leaves some hope that even after death they will enjoy their treasures.

Satiated with wealth, if cupidity can be satiated, Sevagy left for the Gate called Juner, only three leagues distant from Biundim but six leagues if the highest part is to be reached. The road by the (hillside) slope is so steep and so narrow that more than one person cannot go up and if anybody happens to come from above there is no other alternative but for one of them to lie down on the ground with his head upwards (this has been done) on a road full of stones or trees that hurt him much

while the other passes above. He has not only to climb on foot but has to take great care and caution, for if he slips or falls he will be reduced to a thousand pieces before reaching the bottom. None of these difficulties (37) prevented Sevagy from going to sack the city of Janer (it is from this city that the place takes its name) for he had sent from Biundim some men to take posts so that none may climb and carry news of his presence in the neighbourhood. Climbing the Gate with the difficulties that an army would naturally suffer, he ordered them to take the road of the city of Juner two leagues away and so adjusted (como tempo medido) the time that the entries and exits of the city (which was also open not only because of the security of the place but also by the King's orders) might be scoured before dawn. This duty was taken up by the cavalry, and Sevagy set out with the infantry to reach at daybreak, and when he arrived at the city it was already his. But as he did not find the treasures he expected Sevagy thought that they were buried and hidden and he subjected the inhabitants to much tortures that yielded him many thousands. The Avaldar, the Governor of the province, was, in particular, much tormented, and he delivered to him a very considerable sum consisting of his as well as of his master's money. And it is well understood why. (38) It should be known that the salary that the Mogul gives his nobles for their service and for the maintenance of a number of horse which they are obliged to keep always ready, and to serve with them whenever ordered, consists of entire kingdoms and sometimes more than one. Kingdoms, provinces, cities with their rights (termos) whatever they may be, their general name is Jaguir. Big Jaguir and small Jaguir is the difference they make and appointment is made for a Jaguir of so many horses. The big Jaguirholders are like kings in their Jaguirs and they place in their Jaguirs Governors who are invariably their servants. This Avaldar was the servant of a great Umbrao (the grandees are called so). Cubatghan was his name and the city of Janer was the metropolis of his Jaguir where

all the revenue was collected to be sent annually by the Governor to his master. This Jaguir yielded thirty lagues of pagodes per year. Each laque is equal to hundred thousand and (thirty laques) make three millions of pagodes, each pagode is equivalent to five cruzados. These Avaldars could not risk this money without the order of their masters, and Cubatghan (39) who had other considerable incomes, had not for two years sent any order for any money and all had been kept, but for Sevagy who took it all. He left Juner (Puner in the original must be a misprint, the context is clear) for another great place five leagues away but belonging to the same Jaguir, to which he dealt the same treatment (where he did the same). This place was defended by the great mountain of Panadar, almost as spacious, as lofty and as impregnable as his esteemed (prevada or beloved) Rayaguer. In its environs (suburbs) there were many houses, gardens and tanks and he often lived there. And when he was detained at this or similar other places he observed a rule, which shows how careful and cautious he was. All along the roads were posted the most faithful spies, and his guards had the order to inform him whenever anybody wants to see him whatever the hour might be. This order was punctually executed and he always remained dressed and he got up at all hours and spoke to all that came, and if it was anything concerning his service, the man was immediately rewarded and if it was the mail or some other information, he noted down the date it was written and the time of its despatch (40) and rewarded them according to their diligence so that all liked to serve him and ceaselessly worked to please him. All these accomplished, he went to add new treasures to those of Rayaguer.

The Avaldar of Janer informed his master Cubatghan of the loss, ruins and the lamentable pillage that his Jaguir had suffered from the tyranny of Sevagy. The master was at the Court of Dely where the most powerful Umbraos ordinarily resided, not merely to dignify the court but also to free it from fear. When Cubatghan received the letter he carried it to the

King Oranzebe, the Great Mogol, who has been reigning for many years and still reigns to-day the 28th of August, 1695. After delivering the letter he asked his permission to go to relieve his lands that had been destroyed. Oranzeb gave him the permission but as it would cause so much anxiety if he failed to do anything, the Emperor ordered a powerful army to be sent with him. He nominated for its Saradar or Sarlescarim, which is the same as the General, his uncle Sextaghan, brother of his mother, with eighty thousand horse (41) to which was added the seven thousand of Cubatghan and the twelve thousand of the General. The custom of these people is when they are appointed General for some enterprise to carry to the field a small tent, which is called Cuche (signifies march) with its gate towards the place of their destination. Immediately behind it is fitted the tent of the General which is followed by those of other officers and in the shortest time there rises a great city. The horses also are in the following manner posted in tents ranged with intervening roads. A big iron peg is driven into the earth with an iron ring on its top, and in front of it, another is in the same manner fixed, leaving space for a rope, and from ring to ring goes a rope held and stretched securely and to this the horses are fastened with their halters in a sufficient space, all very well covered and without any confusion before being equipped. Almost always they pass their time in this fashion for almost always they are in the field. There they are cleaned twice a day with such minuteness and care that it is a great offence to see an unclean horse in any part of the camp. If the men also were so clean there would remain nothing to be desired. There is no captain who does not possess elephants. The least of them has ten and the greatest fifty. Of camels, the captain of the poorest Jaguir has eight hundred to carry his baggage. These are not quartered in the army, for they always pass through fields where there is nothing to fear, but when there is an enemy they are quartered in the army in the same way as the horses. Each captain also brings with him

many merchants with everything necessary for human life, and they lend them money to help them in their enterprise. merchants give to the soldiers of that company whatever they want and on the day of the new moon which is the day of payment and profusion, deduct what had been taken. each army is a populous city and so abundantly provided with everything that what cannot be obtained in cities is sought in the camp. With the Umbraos, who were to accompany him, the General then set out for the Decan with eighty thousand horse. Cubatghan wished for wings but as (43) Janer was more than six hundred leagues from the capital, and armies with so much baggage march but slowly, five months were spent on the way though they made a great hurry. This was also due to the roundabout way they had to take in order to lodge near the rivers, an essential and unavoidable necessity, for only rivers can supply the drink of so many troops. And for this reason there are some days of two leagues and some days of eight leagues according to the order of the Mirmanzel who is the Aposentador or Quarter Master, and who has absolute control in this matter. He not only knows the position of the rivers but also the roads where there is enough grass for the innumerable beasts that serve an army. Some rebels or chieftains therefore save themselves for a long time by burning the fields as big armies are then unable to seek them, and they are strong enough for small forces. Generally an expedition (march) is made in the winter for the grass is then green and wet. The grandeur with which Sextaghan marched will be discredited in Europe but it is necessary that we should speak about it, (44) though most people refuse to believe everything outside their country and out of their sight. This proud Mouro had with him two field tents, each carried by three hundred elephants. When he set out from the first, the other was fitted in the place where he would stop that day. Each tent contained houses for him; the tent in which he used to give audience was sixty feet in length and thirty in breadth and its covering was supported on strings of iron fifteen

feet in height. This was followed by bed chambers, private rooms, gardens full of flowers, conveyed in millions of vases, and so delicious that one who saw them would doubt whether they were natural. All the houses were so neat, and furnished with such beautiful and rich furniture that even the court had nothing better. Immediately behind were houses for the ladies, for maidservants, for many eunuchs and innumerable servants; there were other houses for pantry, for plates and different kitchens. Outside there were houses for the revenue office, for the criminal and civil courts and many other departments. In the front of the tent there was a courtyard so big and capacious that (45) the military exercises with all its combats and defences were performed here. All this fabric was surrounded by a wall made of thick doubled cloth, twenty feet in height supported by several iron cylinders with spurs fixed in the ground. Each one of the Umbraos, who are all nobles and very rich, convey themselves in this manner. The only difference is that their baggage is carried by camels for none of them could possess elephants like Sextaghan. Does anybody know how this army looks? The servants are required to raise the tent of the General at the same time that the other is fitted for the following Mangel (station). The Mirmanzel goes every night to report to the General about the events of the day and to consult him about the following march, and when he finds the army tired, he represents to the General that it will be good to rest that day and the General gives him the permission. Immediately an official goes out and loudly proclaims in the above mentioned courtyard -Sabbaa Moghamo Oga. Sabbaa—to-morrow, Moghamo—rest, Oga—we will have (46). The proclamation is followed by innumerable instruments that all should announce it either by sound of instruments or by voice. The instruments of all the captains immediately respond and the whole army is informed in an instant. The same thing is done on the night before the march when the proclaimer says-Sabbaa cucheoga: tomorrow we will march, and while they march let us turn to Sevagy.

SURENDRANATH SEN

Reviews

Pavanadūtam of Dhoyi—edited with critical and historical introduction, Sanskrit notes, variants, etc., by Chintaharan Chakravarty, M.A., Kāvyatīrtha.

This little book forms the thirteenth issue of the Sanskrit Sāhitya Parisat publications. This book of 104 verses (the main portion of the work consisting of 100 verses only), is the only extant work of Dhoyī and was first published in the J. B. A. S. 1905, by Mr. Monmohan Chakravarty. But as it was based on a single MS. it contained numerous errors and inaccuracies. Mr. C. Chakravarty has, therefore, done well in re-editing the work after consulting the MS. in possession of the Asiatic Society of Bengal. The single leaf preserved in the Sanskrit Sahitya Parisat was seen by me more than five years ago, just after the first instalment of MSS, reached the Parisat. I then thought that perhaps other leaves of the MS, would also be found later on when the MSS. would be properly arranged. But I now find that they are still missing. Mr. Chakravarty has not only consulted these new materials but at the same time using careful judgment he has tried to correct many of the inaccuracies found in the earlier version and I am glad to find that I can agree with most of his suggestions. The book contains two introductions, one in English and the other in Sanskrit, and thus may be useful not only to the English-knowing scholars but also to the orthodox Pundits, who do not know English. There are two indices of which the second is more important, having contained a list of names of historical and geographical importance occurring in the book.

Pavanadūta is one of the many imitations of the Meghadūta of Kalidasa but it has also its special interest. It incidentally brings home to us certain facts in connection with the reign of the King Lakṣmaṇa Sena of Bengal in whose court he was a poet. It is also important geographically having contained a description of various places of India starting from the mount Malaya in the extreme south and finishing with Vijayapura in Bengal, the capital city of Gauda at the time of Lakṣmaṇasena. In the introduction the author has dealt exhaustively, and quite ably too, with the historical and geographical questions in connection with the work.

Besides the present work verses attributed to Dhoy! have occasionally been found in the works of anthology and mostly in the Sadukti-karnamṛta. These were originally noticed by Aufrecht in "Z. D. M. G." 1900 and later on by M. Chakravarty in J. A. S. B. 1906. The author has collected these verses in a supplementary note but some of his readings are subject to improvement. I would suggest the following emendations.

- V. 2. न तावडुनु: for खतावडुनु:.
- र for रे. The reading is ने in all the MSS, which is only an error for रे।
 - V. 5. उत्तानीकतलोचनं for उत्ताली.
 - V. 6. प्रधागद्रमे for प्रधागक्षमे.
- V. 9. रीमावली सिववली कुरङ्गनाभिङ्गदस्योपरि राजतेत्या: for सिववलीतरङ्ग would also give a good sense. With this cf. Sārugadhara paddhati 3348, attributed to Lakemīdhara.
 - V. 13. घन कूने for बनाइते.
 - V. 17. निजाश्ववारम for रावम.

The following verse of Sadukti is also attributed to Dhoyi:-

श्रष्टं तनीयानितकोमलय सानहयं वोदमलं न तावत् । इतीव तत्संवद्टनार्थमस्या बलिचयं प्रचति मध्यभागः॥

(Aufrecht, cf. Z. D. M. G. 1900, pp. 616.ff.).

In the main work the following readings would give a better sense.

- V. 38 सुम्धासवासा:.
- V. 44. विषुत्रं seems to be happier than विषद्भ.
- V. 104. Read बीलिता: ची विपाला: for बीतल.

It would have been better if the author had given an English translation of the verses.

On the whole the book has been excellently edited and we can only congratulate the author on his success and we hope that he will give us a detailed study on the Dütakāvyas in the near future.

N. P. C.

Muffled Drums—by S. K. Chettur (published by the Author, Mylapore, Madras: price Rs. 1-8).

This is a fine collection of short stories, which have already appeared in various magazines and papers, and as these latter only command a local circulation (more or less), I think the author has done well in putting them together in the form of a book. Writing short stories is indeed a fine art and the author has shown very great promise in these his first ventures. Tastes differ, and it is just for this reason that a varied collection like this may appeal to a much wider set of readers. Personally I must confess to a decided liking for "Mixed Sweets." The author has shown us what he is capable of doing and we shall be hoping to hear more about him and of his literary work. I would also wish to have a few more parables about "the Dhinus and the Slimmus"—we need them. language is vigorous and shows a taste for literature as also wide reading, a little more polish in places is just what is wanted to make the style brilliant. The 'printer's devil,' too, has crept into a few places. On the whole the book is one to take up when we want an hour or so of refreshment after a good day's work. We heartily welcome the young author and wish for more such tales from his pen.

I. J. S. T.

*Gnosticism-by Mary W. Barrie (Theosophical Publishing House, Adyar, Madras). This little book is one of "the Brahmavidya Library" and contains the substance of a set of lectures delivered in the "Brahmavidya Ashrama "at Adyar. This Ashrama is one of the more recent of the Theosophical activities and is as it were the first step towards creating an International Theosophical University in the near future. The subject of Gnosticism is of intense interest to all students of religion. speaking, Gnosticism is the parāvidyā of which the Upanishads have spoken and every great religion has got its own "Gnosis." The lectures set forth the history of the Christian aspect of this fascinating subject-"Gnosticism" as usually understood. An attempt has been made also to trace clearly the various historical developments and the influences that flowed into early Christian thought as a result of "the hellenising of the world." This is set forth in a thought-provoking diagram on p. 99. The complex subject has been made clearer by means of numerous diagrams and tables. Much in the book may not be acceptable to a purely "intellectual" mind, for Gnosticism demands both the head and the

heart. But even for such there are plenty of hints and ample food for thought. The book is the result of careful and deep and reverent study and forms an admirable introduction for a further study. Such works are needed in connection with other religions as well.

I. J. S. T.

The Fire of Creation—by Dr. J. J. Van der Leeuw (Theosophical Publishing House, Adyar, Madras). It is an inspiring book for all who dream of the future, for all who believe in the perfectability of man, and for all who are working to end the sorrows that seem almost to overwhelm our world at present. The author is truly inspired and has striven to pass on some of his inspiration to his hearers (these were first lectures delivered at Sydney, Australia) and to his readers. He says that he has tried to set forth what he has understood of the creative aspect of God and though he has used the Christian term "God the Holy Ghost" in his book, the reader who follows another faith may make the necessary change in the term and understand the matter in his own light. Thus, as the author himself has suggested, a Hindu may substitute "Brahma" for "the Holy Ghost" and yet make no difference. Readers of Arthur Avalon's books on Shakti will find a great deal of kindred matter in this fine book. The author exalts the Mother to her rightful place in God's Universe and if only for that portion the book ought to be read carefully and with reverence. Then, I am sure, the reader will also feel some of the author's inspiration and his enthusiasm.

I. J. S. T,

Presidency College Register, Compiled and edited by Surendra Chandra Majumdar, M.A., B.L., Professor of History, Presidency College, and Gokulnath Dhar, B.A., Librarian, Presidency College. Published by the Bengal Secretariat Book Depot, Writers' Buildings, Calcutta. Price, Indian, Rs. 2-8, Foreign 4s. 6d.

We have great pleasure in commending to our readers a remarkable publication, perhaps the first of its kind in this country. All who are in any way interested in the work of the Presidency College, Calcutta, will express their warmest thanks to Prof. S. C. Majumdar and Mr. G. N.

Dhar for their splendid compilation of the College Register, just published by the Government of Bengal. Even a cursory glance through the pages of this neatly bound and well-got-up volume will convince the reader of the exhaustive research brought to bear upon the work by the compilers who must have spent many a laborious hour over it. We realize that a record like the one now before us will establish a link between the past and the present, and be the legacy of a glorious tradition to the generations of the future. A perusal of the list of celebrities among the ex-students of the College cannot fail to bring a thrill of pride to every present student, while the 'Old Boys' will be happy to know that they hold places of affection in the memory of the young. The publication of such a record of activities of the College, -in the words of the compilers, "the activities of those who built it up as well as of those whom it fashioned "-is indeed a memorable event for all Presidency College men. It visibly knits them together with the bond of a noble tradition into a brilliant and illustrious community, of whose activities they, as well as the whole of the country, may well be proud.

The first and second chapters deal with the history of the Hindu and Presidency Colleges. They are intended, we think, to serve as but an historical introduction to the work, and full of facts and figures as they are, lack necessarily the niceties of literary artistry. How we wish a separate history of the College were written, and on a method different from that followed in these rather dry chapters! The third chapter furnishes short summaries of the career of every member of the teaching staff who had served the College from 1817 to date. There are, of course, a few omissions which, we are afraid, could not be helped, and do not, we must say, detract from the merit of the work. The Register of ex-students—the kernel of the book—follows next. It is quite a remarkable list, containing the names of some of the greatest men of modern India. It covers the period from 1858 to 1925 and is thus fairly up-to-date. In a supplement is appended a like list of the alumni of Hindu College. We miss a few names. Let us hope in a future edition these defects will be remedied. We are sure, ex-students of this great College will help the compilers by filling in the forms annexed to the volume and sending them to the College.

There are many illustrations in this Register, that add to its attraction. We congratulate all those responsible for the publication for their achievement. Not willingly, it appears, have they foregone any labour that could make the book worthy of its purpose.

CORRESPONDENCE

A Disclaimer.

To

THE EDITOR.

The Calcutta Review

SIR.

My attention has been drawn to certain letters that have appeared and are still appearing in the dailies holding me responsible, along with Dr. Dineschandra Sen, for certain mistakes or misprints in Babu Rajanikanta Gupta's History of India. I hereby beg to inform the public that I never revised the book as a whole, though certain suggestions for improvement and emendation were sought and obtained by Mohini Babu, the son of the late author (Rajani Babu). The work of revision was done by Mohini Babu himself. The statements contained in the preface are inaccurate and much exaggerated.

I have, etc.,

H. C. RAYCHAUDHRI

Ourselves

DATES OF DIFFERENT UNIVERSITY EXAMINATIONS.

The next Matriculation Examination will commence on Tuesday, the 27th March, 1928.

The next Intermediate Examinations in Arts and Science will commence on Monday, the 27th February, 1928.

The next B.A. and B.Sc. Examinations in Honours will commence on Tuesday, the 27th March, 1928.

The next B.A. and B.Sc. Examinations in Pass will commence on Friday, the 30th March, 1928.

The ensuing Law Examinations will commence on the dates noted below in supersession of the previous notification which was published in the last issue of the Review:

Preliminary Law-10th January, 1928.

Intermediate Law-17th January, 1928.

Final Law-23rd January, 1928.

RESULTS OF UNIVERSITY LAW EXAMINATIONS.

Intermediate Law.

The number of candidates registered for the Examination was 868 of whom 504 passed, 205 failed and 159 were absent. Of the successful candidates 33 were placed in Class I.

Final Law.

The number of candidates registered for the Examination was 1,036 of whom 438 passed, 178 failed, 1 was expelled and 419 were absent. Of the successful candidates 26 were placed in Class I.

J. C. GHOSE RESEARCH PRIZE FOR 1926.

The Jogendrachandra Ghose Research Prize in Comparative Indian Law for the year 1926 has been awarded to Pandit Sitikantha Vāchaspati of the Sanskrit College, Calcutta, for his thesis on "The Principles governing the administration of Criminal Law in Ancient India and the Procedure adopted in the administration thereof."

ADHARCHANDRA MUKHERJI LECTURES FOR 1927.

Prof. Jnanchandra Ghosh, D.Sc., of the Dacca University, has been appointed Adharchandra Mukherji Lecturer for 1927, the subject of his lectures being "Recent Developments in Photo-Chemistry."

MR. S. K. MAITRA AND The Ethics of the Hindus.

We gladly reproduce from The Philosophical Review of July, 1927, portions of an appreciative review of Mr. Susil-kumar Maitra's book on The Ethics of the Hindus, published by the University of Calcutta:

Mr. Maitra is one of the younger members of that group of Indian thinkers who in our day are attempting to make the philosophy of their country a living force. Too long, they feel, has Indian philosophy been handed on by Sanskrit-writing pundits as the possession of a small inner circle, or expounded by foreigners as an interesting anthropological development. Hence, almost as if by deliberate co-operation, works of a truly, philosophical nature, in exposition of Indian thought as thought, have appeared from the pens of men like Babu Bhagavan Das, the late Mr. Vasudeva Kirtikar, Mr. Coomaraswamy, Mr. Ranade, Professors Radhakrishnan and Dasgupta, not to mention less technical writers like Tagore and Muckerje. The center of this new movement is in and near Calcutta, and it is here that Mr. Maitra works.

In Part II are presented, with a good deal of skill, many of the subtle psychological distinctions made by various Hindu schools of thought in the analysis of volition, of conscience, and of the springs of action. To this second part is devoted the major portion of the book, and the reader will find within it an exposition of many points on Hindu psychology as well as of ethics not elsewhere available in English.

But in brief summary it should be said that Mr. Maitra has shown himself a sound scholar and a careful and unprejudiced thinker, and that his book will be of real service to all those who would know more of the contribution which India has made to the study of morality.

University of Calcutta

Latest Publications

- Yedanta Paibhasa of Dharmarajadhwarindra with commentary Paribhashaprakashika by Mahamahopadhyay Anantakrishna Sastri, Lecturer in Vedanta and Mimansa, Calcutta University, with a Foreword by Prof. S. Radhakrishnan, M.A., Royal 8vo. pp. 462.
- Hinayana and Mahayana and Origin of Mahayana Buddhism, by R. Kimura. Royal 8vo. pp. 203. Rs. 2-4.
- Rights and Duties of the Indian Citizen (Kamala Lectures 1926), by the Right Hon'ble Mr. V. S. Srinivasa Sastri, P.C. Demy 8vo. pp. 116. Rs. 1-8.
- Journal of Letters, Vol. XVI, Royal 8vo. pp. 446. Rs. 9.
 - 1. An Introduction to the Post-Chaitanya Sahajiā Cult. by Manindramohan Bose, M.A.

2. The Poet Kalidas and Sea-voyage, by Rai Pankaja-

kumar Chatterjee, Bahadur, M.A., B.L. 3. Date of Kabikankan Mukundarām Chakravarti, by Basanta K. Chatteriee, M.A.

4. Padāvali Literature—Vidyapati, by Basanta K. Chatter-

jee, M.A.

5. The Padas of Candidasa, by Manindramohan Bose, M.A.

The Aryabhatiyam (A translation), by Prabodhchandra

Sengupta, M.A.

7. Note on the Library of Abdur Rahim Khan Khanan, the first Prime Minister of the Emperor Akbar, by Shams-ul-Ulama Hafiz Nazir Ahaman Khan Sahib.

8. The Nyāya Doctrine of Pramāna, by Satishchandra

Chatterjee, M.A.

9. Early History of Bengal (Sena Period), by Girindramohan Sarkar, M.A.

Journal of Science, Vol. VIII, Royal 8vo. pp. 207. Rs. 9.

1. Synthesis of Boranilide and its Derivatives, by Tarinicharan Chaudhuri, M.A., Ph.D., A.I.C.

- 2. The Scattering of Light by Solid Surfaces, by L. A. Ramdas, M.A.
- 3. Purana Group of the Himalayas, by Hemchandra Dasgupta, M.A., F.G.S.
- 4. Commentationes Algologicæ: IV. Compsopogon Lividus (Hooker). De Toni, by P. Brühl, D.Sc., and Kalipada Biswas, M.A.
- 5. Commentationes, Phytomorphologicæ et Phytophysiologicæ: IV. Eichhornia Studies: (On the Production of Ripe Seeds by Artificial Pollination of Eichhornia Speciosa, by P. Brühl, D.Sc., and Jatis Sengupta, M.Sc.
- 6. Palæontological Notes on the Nummulitic Rocks of Cherra-Punji, Khasi Hills, Assam, by Hemchandra Dasgupta,
- M.A., F.G.S.
- 7. Notes on Pentatrichomonas Canis auri N. Sp., by G. C. Chatterjee, M.B., Harendranath Roy, M.Sc., and A. N. Maitra, B.Sc., M.B.
- 8. A Note on the Method of Multiplication of Trichomonad Flagellates of Different Species in Artificial Culture, by G. C. Chatteriee, M.B.
- 9. Notes on the Occurrence of Ovaries in the Worker of Myrmicaria brunnea Saunders, by Durgadas Mukherjee, M.Sc.
- 10. Flora of the Salt-Lakes, Calcutta, by Kalipada Biswas, M.A.
- 11. Aquatic Vegetation of Bengal in relation to Supply of Oxygen to the Water, by Kalipada Biswas, M.A.
 - 12. Aeroplane Motion, its Theory and Application, by N. K.
- Bose, M.Sc., Ph.D. (Gottingen).
- 18. On the Occurrence of Limnocharis Flava Linn., in Burma by P. Brühl, D.Sc., and Satvaranjan Sen, M.Sc.
 - 14. Indian Slime Fungi (Myxomycetes or Mycetozoa), by P.
- Brühl, D.Sc., and Jatis Sengupta, M.Sc.
- 15. Notes on the Geology of the Island of Bombay, by Hemchandra Dasgupta, M.A., F.G.S.
- Current International Co-operation, by Manley O. Hudson. D/Crown 16mo. pp. 156. Rs. 2.
- Sir Asutosh Mookerjee Silver Jubilee Commemoration Volumes—Vol. III (Orientalia), Part III, Royal 8vo., pp. 546. Rs. 11-4.
- Indian Railway Economics, Part I, (Revised Edition), by Mr. S. C. Ghose. Demy 8vo. pp. 128. Rs. 2.

BOOKS IN THE PRESS IN OCTOBER, 1927

- 1. Notes on Manu Smriti, by Mahamahopadhyay Dr. Ganganath Jha, M.A., D.Litt.
- 2. History of Indian Medicine, Part III, by Girindranath Mockerjee, B.A., M.D.
- Benimendir (in Bengali), by Sasankamohan Sen, B.L.
- 2. Proceedings of the Philosophical Congress.
- 5. Descriptive Catalogue of Old Bengali Manuscripts in the University Library, Vol. II, edited by Manindramohan Bose. M.A.
- 6. History of Indian Literature, by Prof. M. Winternits, translated into English by Mrs. S. Ketkar.
- Newness of Life (Stephanos Nirmalendu Lectures), by Prof. M. A. Canney.
- 8. Desinamamala, edited by Muralydhar Banerjee, M.A.
- 9. Spirit of French Civil Law (Tagore Law Lectures, 1928-1924), by Prof. Henry Solus.
- 10. Elements of the Science of Language, by Prof. I. J. S. Taraporewala, B.A., Ph.D.
- 11. Siddhanta-Sekhara, by Babua Misra, Jyotishacharyya.
- 12. Visuddhimaggo, by Prabodhchandra Das, M.A.
- 18. Asamiya Sahityer Chaneki, Vol. I. Part I. edited by H. C. Goswami, B.A.
- 14. Rural India, by Nagendranath Gangulee, Ph.D. (London).
- 15. Harilia (in Bengali), edited by Rai Bahadur Dineschandra Sen, B.A., D.Litt., and Basantaranjan Ray, Vidwatvallabh.
- Indian Political and Cultural Influence in Cambodia, by
 B. R. Chatterjee, M.A.
- 17. Journal of the Department of Science, Vol. IX.
- 18. Journal of the Department of Letters, Vol. XVII.
- 19. Surya-Siddhanta.
- 20. Yoga Philosophy in relation to other systems of Indian Thought, by S. N. Dasgupta, M.A., Ph.D.
- 21. Eastern Bengal Ballads, Vol. III, Part I, edited by Rai Bahadur D. C. Sen, D.Litt.

- Plants and Plant-Life, by Girijaprasanna Majumdar, 22. M.A.
- Vishnudharmottaram, by Stella Kramrisch, Ph.D. 28.
 - Notes on Kavikankan Chandi, Part II, by Charu Bandyopadhyay, B.A.
- Panini, by late Rajanikanta Gupta. **2**5.
 - University Examinations Question Papers for 1921. University Examinations Question Papers for 1922. 26.
 - 27.
 - University Examinations Question Papers for 1923. 28.

CALCUTTA UNIVERSITY PUBLICATIONS

I. ANCIENT INDIA

1. CULTURE AND SOCIAL ORGANISATION

- Culture and Kultur Race Origins or the Past Unveiled, by H. Bruce Hannah, Bar-at-Law. Demy 8vo. pp. 158. Rs. 3-12.
- Ancient Indian Numismatics (Carmichael Lectures, 1921), by Prof. D. R. Bhandarkar, M.A., Ph.D., F.A.S.B. Demy 8vo. pp. 241. Rs. 4-14.
- Asoka (Carmichael Lectures, 1923), by D. R. Bhandarkar, M.A., Ph.D., F.A.S.B., Carmichael Professor of Ancient Indian History and Culture, Calcutta University. Demy 8vo. pp. 364. Rs. 5.
- The Evolution of Indian Polity, by R. Shama Sastri, B.A., Ph.D. Demy 8vo. pp. 192. Rs. 6.
- Social Organisation in North-East India, in Buddha's Time, by Richard Fick (translated by Sisirkumar Maitra, M.A., Ph.D.). Demy 8vo. pp. 390. Rs. 7-8.
- Sources of Law and Society in Ancient India, by Nareschandra Sen, M.A., D.L. Demy 8vo. pp. 109. Rs. 1-8.
- Political History of Ancient India (From the Accession of Parikshit to the extinction of the Gupta Dynasty), by Hemchandra Raychaudhuri, M.A., Ph.D. Second Edition, Revised and Enlarged. Royal 8vo. pp. 418+28. Rs. 7-8.
- Ancient Romic Chronology, by H. Bruce Hannah, Bar.-at-Law. Royal 8vo. pp. 60. Rs. 1-8.

- Pre-Historic India, by Panchanan Mitra, M.A. Second Edition, Revised and Enlarged. Demy 8vo. pp. 542 (with 53 plates). Rs. 7.
- International Law and Customs in Ancient India, by Pramathanath Banerjee, M.A., B.L. Royal 8vo. pp. 170. Rs. 4.
- Economic Condition of Ancient India, by J. N. Samaddar, B.A., M.R.A.S., F.R.E.S., F.R.Hist.S. Demy 8vo. pp. 186. Rs. 3.
- Some Contribution of South India to Indian Culture, by S. Krishnaswami Aiyangar, M.A., Ph.D. Demy 8vo. pp. 468. Rs. 6.
- Some Problems of Indian Literature, by Prof. M. Winternitz, Ph.D. Royal 8vo. pp. 130. Rs. 2-8.
- Katyayana-Mata-Sangraha, by Narayanchandra Bandyo-padhyay, M.A. Royal 8vo. pp. 124. Rs. 2-4.

2. RELIGION AND PHILOSOPHY

- Comparative Religion (Stephanos Nirmalendu Ghosh Lectures delivered in the Calcutta University in 1923; published in July, 1925), by Prof. A. A. Macdonell, M.A. (Oxon.), Ph.D. (Leipzig), D.Litt. (Edin.), D.O.L. (Calcutta). Royal 8vo. pp. 194. Rs. 3.
- The Kamala Lectures on Indian Ideals in Education, Philosophy and Religion and Art, by Annie Besant, D.L., with a Foreword by the Hon'ble Sir Ewart Greaves, Kt. Demy 8vo. pp. 135. Rs. 1-8.
- System of Buddhistic Thought, by Rev. S. Yamakami. Royal 8vo. pp. 372. Rs. 15-0.
- Prolegomena to a History of Buddhistic Philosophy, by B. M. Barua, M.A. (Cal.), D.Lit. (Lond.) Royal 8vo. pp. 52. Rs. 1-8.
- The Original and Developed Doctrines of Indian Buddhism, by Ryukan Kimura. Sup. Royal 8vo. pp. 82. Rs. 3.

- The History of Pre-Buddhistic Indian Philosophy, by B. M. Barua, M.A. (Cal.), D.Lit. (Lond.). Royal 8vo. pp. 468. Rs. 10-8.
- Prakrit Dhammapada, by B. M. Barua, M.A. (Cal.), D.Lit. (Lond.) and S. N. Mitra, M.A. Demy 8vo. pp. 322. Rs. 5.
- Early History of the Vaishnava Sect, by Hemchandra Raychaudhuri, M.A., Ph.D. Demy 8vo. pp. 158. Rs. 2-13.
- A History of Indian Logic (Ancient, Mediæval and Modern Schools), by Mahamahopadhyaya Satischandra Vidyabhushan, M.A., Ph.D., M.R.A.S., F.A.S.B., late Principal, Sanskrit College, Calcutta, and Joint Philological Secretary, Asiatic Society of Bengal. With a Foreword by Sir Asutosh Mookerjee. Demy 8vo. pp. 696. Rs. 15.
- A Short History of the Mediæval School of Indian Logic (Griffith Memorial Prize, 1907), by the same author. Royal 8vo. pp. 210. Rs. 7-8.

3. ANCIENT INDIAN TEXTS

- Rigueda Hymns (with the commentary of Sayana). Demy 8vo. pp. 136. Rs. 2-13.
- Manu Smriti. Edited by Mahamahopadhyaya Ganganatha Jha, M.A., D.Litt., Vice-Chancellor, Allahabad University.
- Vol. I, Part I—Comprising Discourse I and 28 verses of Discourse II. Royal 8vo. pp. 266. Rs. 6.
- Vol. I, Part II—Comprising verses XXIX to end of Discourse II. Royal 8vo. pp. 290. Rs. 6.
- Vol. II, Part I—Comprising the whole of Discourse III. Royal 8vo. pp. 304. Rs. 6.
- Vol. II, Part II—Comprising Discourse IV. Royal 8vo. pp. 208. Rs. 6.
- Index to Vols. I and II. Royal 8vo. pp. 148. Rs. 1-8.

- Vol. III, Part I—Comprising Discourses V and VI. Royal 8vo. pp. 278. Rs. 6.
- Vol. III, Part II—Comprising Discourse VII and the Index to the whole of Vol. III. Royal 8vo. pp. 206. Rs. 7.
- Vol. IV, Part I—Comprising a portion of Discourse VIII. Royal 8vo. pp. 252. Rs. 8.
- Vol. IV, Part II—Comprising Discourse VIII and Index to Vol. IV. Royal 8vo. pp. 238. Rs. 7-8.
- Vol. V—Comprising Discourses IX to XII. Royal 8vo. pp. 709. Rs. 12-8.
- Manu Smriti, Notes, Part I—Textual—By the same author. Royal 8vo. pp. 569. Rs. 12.
- Do. Part II—Explanatory—By the same author. Royal 8vo. pp. 870. Rs. 15.
- Do. Part III—Comparative—By the same author. (In the press.)
- Inscriptions of Asoka, by Prof. D. R. Bhandarkar, M.A., Ph.D., and Dr. S. N. Majumdar, M.A., Ph.D. Crown 8vo. pp. 104. Rs. 4-4.
- Barhut Inscriptions. Edited and translated with critical notes by B. M. Baruya, M.A., D.Lit. (Lond.), and Kumar Gangananda Sinha, M.A. Crown pp. 139. Rs. 3.

II. HISTORY

1. INDIA (MEDIAEVAL AND MODERN)

- Siva Chhatrapati, by Surendranath Sen, M.A., Ph.D. Demy 8vo. pp. 284. Rs. 4-14.
 - Administrative System of the Marathas (from original sources), by Surendranath Sen, M.A., Ph.D. Second edition (revised and enlarged). First edition exhausted within a year of its publication. Demy 8vo. pp. 730. Rs. 10.
- Bengal in the Sixteenth Century, by J. N. Das Gupta, B.A. (Oxon.). Sup. Royal 8vo. pp. 196. Rs. 2-13.
- India in the Seventeenth Century, by J. N. Das Gupta, B.A. (Oxon.). Demy 8vo. pp. 258. Rs. 3-8.

9

Historical Records of Baroda, by Rai Bahadur B. A. Gupte, M.R.A.S., F.Z.S. (with annotations). Royal 8vo. pp. 166. Rs. 6.

LAW

- * England's Work in India. pp. 210. Rs. 1-8.
- *Bharate Ingrej Shasan (Bengali Edition), Revised and enlarged, edited by Rai Bahadur Khagendranath Mitra, M.A. pp. 248+12. Rs. 1-8.
- Bharate Ingraj (Hindi Edition) pp. 262. Rs. 1-6.
- Orissa in the Making, by Bijaychandra Mazumdar with an introductory Foreword by Sir Edward A. Gait, M.A., K.C.S.I., Retd. Lieut.-Governor of Bihar and Orissa. Crown 8vo. pp. 247 (1925). Rs. 4-8.

2. ISLAM

- A History of Islamic People, by S. Khuda Bukhsh, M.A., B.C.L., Bar.-at-Law. Demy 8vo. pp. 178. Rs. 5-10.
- The Orient under the Caliphs, by S. Khuda Bukhsh, M.A., B.C.L., Bar.-at-Law. Demy 8vo. pp. 470. Rs. 8-6.
- The Early Heroes of Islam, by S. A. Salik, B.A. (Bengal Civil Service). Demy 8vo. pp. 514. Rs. 6.
- The Arab Kingdom and its Fall, by J. Wellhausen, translated by Mrs. J. H. Weir, Demy 8vo. pp. 592+20. Rs. 7-8.

III. LAW

- Recent Developments in International Law (Tagore Law Lectures delivered in the Calcutta University in 1922), by J. W. Garner, Ph.D., D.L., Professor of Political Science in the University of Illinois. Royal 8vo. pp. 850. Nice get-up. Excellent full cloth binding. Price (in India) Rs. 17-0 and 30s. (abroad).
- The Evolution of Law, by Nareschandra Sen Gupta, M.A., D.L., Advocate, Calcutta High Court. Royal 8vo. pp. 191. Rs. 2-8.
- The Problems of Aerial Law, by Bijankumar Mukherjee, M.A., D.L. Demy 8vo. pp. 255. Rs. 2-8.

- Effect of War on Contracts (Onauth Nauth Deb Prize, 1917), by Praphullachandra Ghosh, M.A., B.L. Demy 8vo. pp. 152. Rs. 4-8.
- Trading with the Enemy (Onauth Nauth Deb Prize, 1918), by A. C. Gupta, M.A., B.L. Demy 8vo. pp. 146. Rs. 4-8.
- Legal Aspects of Strikes (Onauth Nauth Deb Prize, 1919), by Prabodhchandra Ghosh, M.A., B.L. Demy 8vo. pp. 61. Rs. 2-4.
- Occupancy Right—Its History and Incidents (Onauth Nauth Deb Prize), by Radharaman Mookerjee, B.L., Vakil (Calcutta High Court), Author of the Law of Benami. Demy 8vo. pp. 436. Rs. 6-0.
- Position of Women in Hindu Law, by Dwarka Nath Mitra, M.A., D.L. Demy 8vo. pp. 758. Rs. 12-0.
- The Theory of Sovereignty, by Sasankajiban Ray, M.A., D.L. Printed at an outside Press. Demy 8vo. pp. 360. Rs. 10-0.
- The Theory of Adoption (Jogendrachandra Ghosh Prize, 1909), by Pandit Durvasula Sriram Sastri. Demy 8vo. pp. 59. Rs. 3-12.
- The Hindu Philosophy of Law, by Radhabinode Pal, M.A., M.L. Demy 8vo. pp. 176. Rs. 6.

LEADING CASES

- * Part I, Hindu Law. Royal 8vo. pp. 245. Rs. 1-8.
- * Part II, Muhammadan Law. Royal 8vo. pp. 171. Re. 1-0
- * Part III, Land Tenures, Land Revenue and Prescription Royal 8vo. pp. 158. Re. 1-0.
- * Part IV, Law of Transfer inter vivos. Royal 8vo. pp. 108 Re. 1-0.
- * Part V, English Law of Real Property and Law of Intestate and Testamentary Succession in British India. Royn 8vo. pp. 108. Re. 1-0.
- * Part VI, Equity and Trust. Royal 8vo. pp. 170. Rs. 1-4
- *Part VII, Law of Contracts and Torts. Royal 8vo. pp. 227. Rs. 1-8.

- * Part VIII, Law of Evidence, Civil Procedure and Limitation. Royal 8vo. pp. 89. Re. 1-0.
- * Part IX, Law of Crimes and General Principles of C. P. Code. Royal 8vo. pp. 102. Re. 1-0.
- * Supplementary cases on-

Hindu Law, Part I, Royal 8vo. pp. 146. As. 12.

Hindu Law, Part II, Royal 8vo. pp. 130. Rs. 1-8.

Muhammadan Law, Royal 8vo. pp. 69. As. 6.

Land Tenures and Prescription. Royal 8vo. pp. 97. Re. 1-0.

Transfer of Property. Royal 8vo. pp. 95. As. 8.

Real Property. Royal 8vo. pp. 23. As. 6.

Law of Contracts and Torts. Royal 8vo. pp. 27. As. 8.

Evidence and Civil Procedure. Royal 8vo. pp. 164. Re. 1-0.

Limitation. Royal 8vo. pp. 37. As. 8.

Law of Crimes. Royal 8vo. pp. 141. Re. 1-0.

IV. ECONOMICS. &c.

- Wages and Profit-Sharing (with a Chapter on Indian conditions), by R. N. Gilchrist, M.A., Labour Intelligence Officer, Government of Bengal. Rs. 7-0.
- Separation of Executive and Judicial Functions, by R. N. Gilchrist, M.A. Demy 8vo. pp. 244. Rs. 4-0.
- Factory Legislation in India, by J. C. Kydd, M.A. Royal 8vo. pp. 198. Rs. 4-8.
- Regulations of Jail Labour, &c. Demy 8vo. pp. 14. As. 6.
- History of Police Organisation in India. Demy 8vo. pp. 53. As. 12.
- Self-Government and the Bread Problem, by Capt. J. W. Petavel, R.E. (Retd.). Demy 8vo. pp. 128 (Board) Rs. 1-8.
- Do. (Cloth) Rs. 1-14.
- Non-Co-operation and the Bread Problem, by Capt. J. W. Petavel, R.E. (Retd.). Demy 8vo. pp. 23. As. 6.

- Man and Machine Power in War and Reconstruction, by Capt. J. W. Petavel, R.E. (Retd.). Demy 8vo. pp. 164. Rs. 1-8.
- Economic Causes of Famines in India (Beereswar Mitter Medal, 1905), by Satischandra Ray, M.A. Demy 8vo. pp. 85. Rs. 4-4.
- Agricultural Indebtedness in India and its Remedies, by Satischandra Ray, M.A. Royal 8vo. pp. 493. Rs. 7-0.
- Land Revenue Administration in India, by Satischandra Ray, M.A. Royal 8vo. pp. 142. Rs. 2-13.
- Wealth and Welfare of the Bengal Delta, by S. G. Panandikar, M.A., Ph.D. Royal 8vo. pp. 372. Rs. 5.
- Lectures on Indian Railway Economics, by S. C. Ghose, Late General Manager of the B.K., A.K., K.F., and B.D.R. Rys.; and also for some time special officer with the Railway Board, Government of India, Railway Department, Lecturer, Calcutta University.
- Do. Part I, Demy 8vo. pp. 72. Rs. 1-8
- Do. Part II, Demy 8vo. pp. 98. Rs. 3-0.
- Do. Part III, Demy 8vo. pp. 166. Rs. 3-0.
- Organization of Railways, by the same author. Demy 8vo. pp. 32. Rs. 1-8.
- Protection for Indian Steel, by E. H. Solomon, B.A. (Cantab.), sometime Scholar of King's College, Cambridge, Professor of Political Economy, Presidency College, Calcutta and Benares Hindu University. Royal 8vo. pp. 120. Rs. 5-0.
- Present Day Banking in India, by B. Ramachandra Rau, M.A., L.T. Second edition (thoroughly revised and enlarged). Demy 8vo. pp. 318. Rs. 5-0.
- Elementary Banking, by B. Ramachandra Rau, M.A., L.T. Demy 8vo. pp. 209. Rs. 3.
- Economics of Leather Industry, by the same author. Demy 8vo. pp. 194. Rs. 2-8.
- Inland Transport and Communication in Mediaeval India, by Bijoykumar Sarkar, A. B. (Harvard). Royal 8vo. pp. 91. Rs. 1-12.

- Problem of Indian Nationality, by Sukumar Dutt, M.A., B.L. (Jubilee Research Prize Thesis, 1922). Royal 8vo. pp. 210. Rs. 3.
- Paper Currency in India, by Dr. B. B. Das Gupta, M.A., Ph.D. (Cal.), B.Sc. (Lond.), Reader, Lucknow University. Demy 8vo. pp. 332. Rs. 4.
- Current International Co-operation, by Prof. Manley O. Hudson. D/Crown 16mo. pp. 156. Rs. 2.

V. PHILOSOPHY

- Studies in Yedantism (Premchand Roychand Studentship, 1901), by Krishnachandra Bhattacharyya, M.A. Demy 8vo. pp. 84. Rs. 3-12.
- The Study of Patanjali (Griffith Memorial Prize, 1915), by S. N. Dasgupta, M.A., Ph.D. Demy 8vo. pp. 216. Rs. 4-8.
- Adwaitabad (Bengali), by Kokileswar Sastri, Vidyaratna, M.A. Second Edition. Revised and Enlarged. Royal 8vo. pp. 255. Rs. 3-8.
- Philosophical Currents of the Present Day, by L. Stein (translated by Shishirkumar Maitra, M.A., Ph.D.).

Vol. I. Royal 8vo. pp. 250. Rs. 4-8.

Vol. II. Royal 8vo. pp. 162. Rs. 4-8.

Vol. III. Royal 8vo. pp. 237. Rs. 3-8.

- Hegelianism and Human Personality, by Hiralal Haldar, M.A., Ph.D. Demy 8vo. pp. 67. Rs. 3-12.
- Socrates, (in Bengali: illustrated), Vol. I, by Rajanikanta Guha, M.A. Demy 8vo. pp. 584. Rs. 5-0.
- Do. Vol. II. Demy 8vo. pp. 861. Rs. 8-0.
- Introduction to Advaita Philosophy (English edition), by Kokileswar Sastri, Vidyaratna, M.A. Second Edition—

 Thoroughly Revised and Enlarged. Demy 8vo. pp. 280.

 Rs. 4-0.
- Ethics of the Hindus, by Susil Kumar Maitra, M.A. Boyal 8vo. pp. 870. Rs. 4-8.

YI. LANGUAGE AND LITERATURE

1. GRAMMARS, &c.

- * Elementary Sanskrit Grammar with Dhatukosha. Demy 8vo. pp. 255. Rs. 2-0.
- * Do. do. (Bengali Edn.). Demy 8vo. pp. 246, Rs. 2-0.
- * Balavataro or an Elementary Pali Grammar. Demy 8vo. pp. 168. Re. 1-0.
- A Grammar of the Tibetan Language, by H. Bruce Hannah, Bar.-at-Law. Royal 8vo. pp. 416. Rs. 11-4.
- English-Tibetan Dictionary, by Lama Dawsamdup Kazi. Royal 8vo. pp. 1003. Rs. 15-0.
- Higher Persian Grammar, by Lt.-Col. D. C. Phillott, M.A., Ph.D., F.A.S.B. Royal 8vo. pp. 949. Neatly printed and nicely bound. Rs. 14-0.
- Sabda-sakti-Prakasika, by Pandit Jagadisa Tarkalankara, Part I, Demy 8vo. pp. 158. Rs. 1-6.
- Selections from Avesta and Old Persian. First Series, Part I, by I. J. S. Taraporewala, B.A., Ph.D., Professor of Comparative Philology, Calcutta University. Demy 8vo. pp. 255. Rs. 6-0.

2. BENGALI

The Origin and Development of the Bengali Language, by Sunitikumar Chatterji, M.A. (Cal.), D.Lit. (London), Khaira Professor of Indian Linguistics and Phonetics and Lecturer in English and Comparative Philology in the University of Calcutta. With a Foreword by Sir George Abraham Grierson, K.C.I.E., I.C.S. (Retd.), Director of the Linguistic Survey of India.

In two Vols., F'cap 4to.

Vol. I—Introduction and Phonology, pp. i-xci, 1-648.

Vol II—Morphology, Additions and Corrections, and Index of Bengali Words, pp. 649-1179.
Two Vols., Cloth-bound, Uncut Edges. Rs. 20.

- History of Bengali Language, by Bijaychandra Mazumdar, B.L., Lecturer in Anthropology, Comparative Philology and Indian Vernaculars in the University of Calcutta. Revised and Enlarged. Second Edition, Demy 8vo. pp. 323. Rs. 7-0.
- History of Bengali Language and Literature (in English), by Rai Bahadur Dineschandra Sen, B.A., D.Litt. Demy 8vo. pp. 1067. Rs. 16-12.
- Bengali Ramayanas, by Rai Bahadur Dineschandra Sen, B.A., D.Litt. Demy 8vo. pp. 335. Rs. 7-8.
- The Vaishnava Literature of Mediæval Bengal, by Rai Bahadur Dineschandra Sen, B.A., D.Litt. Demy 12mo. pp. 312. Rs. 1-6.
- Chartanya and His Age (Ramtanu Lahiri Fellowship Lectures for 1919 and 1921), by Rai Bahadur Dineschandra Sen, B.A., D.Litt., with a Foreword by Prof. Sylvain Levi. Demy 8vo. pp. 453. Rs. 6-0.
- Chaitanya and His Companions, by Rai Bahadur Dineschandra Sen, B.A., D.Litt. Demy 8vo. pp. 341. Rs. 2-0.
- Bengali Prose Style, by Rai Bahadur Dineschandra Sen. B.A., D.Litt. Demy 8vo. pp. 184. Rs. 4-4.
- Vanga-Sahitya-Parichaya or Typical Selections from Old Bengali Literature. Edited by Rai Bahadur Dineschandra Sen, B.A., D.Litt. In two parts. Royal 8vo. pp. 2087. Rs. 16-12.
- Folk Literature of Bengal, by Rai Bahadur Dineschandra Sen, B.A., D.Litt. Demy 8vo. pp. 404. Rs. 4-4.
- Eastern Bengal Ballads—Mymensingh, Vol. I, Part I, by Rai Bahadur Dineschandra Sen, B.A., D.Litt. Royal 8vo. In two parts, complete in 900 pages. Rs. 7-8.
- Do. Vol. II, Part I. Edited with Introduction and Notes, by Rai Bahadur Dineschandra Sen, B.A., D.Litt. (with 21 illustrations). Royal 8vo. pp. 546. Rs. 7-8.
- Do. (Maimansingha Gitika), Vol. I, Part II. Rs. 5-0.
- Purva-Banga Gitika, Vol. II, Part II. Edited with Introduction and Notes, by Rai Bahadur Dineschandra Sen,

- B.A., D.Litt. (with 21 illustrations). Royal 8vo. pp. 585. Rs. 5.
- Kavikankan Chandi, Part I. Edited by Rai Bahadur Dineschandra Sen, Charuchandra Banerjee and Hrishikesh Basu. Rs. 6-0.
- Kabikankan Chandi, Part II. Edited by Rai Bahadur Dineschandra Sen, Charuchandra Banerjee, and Hrishikesh Bose. pp. 685. Rs. 6.
- Chandimangala-bodhini or Notes on Kavikankan-Chandi, Part I, by Charuchandra Banerjee. Royal 8vo. pp. 672. Rs. 6.
- Govindadas's Karcha. Edited with elaborate Introduction and Notes by Rai Bahadur Dineschandra Sen, B.A., D.Litt. Royal 8vo. pp. 103. Rs. 1-8.
- Gopichandra, Part I, Edited by Rai Bahadur. Dineschandra Sen, B.A., D.Litt., and Mr. Basantaranjan Ray. Royal 8vo. pp. 311. Rs. 4-8.
 - Dc. Part II, Royal 8vo. pp. 434. Rs. 6-0.
- Early Bengali Prose, by S. R. Mitra. Demy 8vo. pp. 184. Rs. 3-0.
- Bengali Literature in the Nineteenth Century (Premchand Roychand Studentship thesis, 1917), by S. K. De, M.A., D.Lit. Demy 8vo. pp. 530. Rs. 8-6.
- The Origin of Bengali Script (Jubilee Research Prize, 1913), by Rakhaldas Banerjee, M.A. Demy 8vo. pp. 122. Rs. 3-0.
- Glimpses of Bengal Life, by Rai Bahadur Dineschandra Sen, B.A., D.Litt. Demy 8vo. pp. 321. Rs. 4.
- *Matriculation Bengali Selections. Crown 8vo. pp. 400. Rs. 2-8.
- *Intermediate Bengali Selections. Crown 8vo. pp. 432. Rs. 3-0.
- Descriptive Catalogue of Bengali Manuscripts in the Calcutta University Library, Vol. I. Edited by Basanta Ranjan Ray, Vidvadvallabh, and Basantakumar Chatterjee, M.A. Demy 8vo. pp. 252. Rs. 3-0.

The Theoretical Publishing Times, Add

POR

BACK NUMBERS

OF THE

THERD SERIES

HE CALCUTTA RE

Ne to the Manager, Calcula

IF YOU ARE GOING TO START A LABORATORY

ASK US
TO COMPLETELY EQUIP SAME

OUR STOCK IS THE LARGEST AND MOST VARIED IN INDIA

We can Equip a Complete B.Sc. or Two I.Sc. Laboratories by supplies ex stock

Everything done under expert supervision of Mr. P. C. Chattopadhyay, M.A., F.C.S. (Lond.), etc.

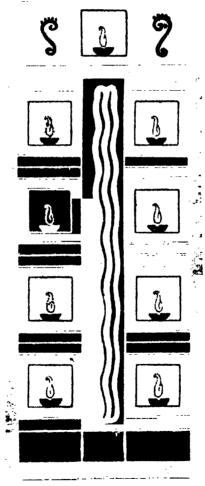
ON Account of Lower Cost, There is Considerable Reduction in Prices in All Lines

Scientific Supplies (Bengal) Co.,

29-36, COLLEGE STREET MARKET, ~ SCIENCE BLOCK," CALCUTTA.

Telegrams: Bitisynd, Calcutta. Telephone: Burrabazar, 524.

CA CUTTA REVIEW



NOVEMBER 1927

THE CALCUTTA REVIEW

ESTD. 1844]

[THIRD SERIES: 1921

Honorary Editor-in-Chief: JAYGOPAL BANERJEE, M.A.

Supported by a strong BOARD OF CONSULTING EDITORS. Honorary Secretary: P. N. BANERJEE, M.A., B.L.

Matters for publication are to be sent to the Hony. Secretary, Calcutta Review, Senate House, Calcutta.

Our Agents for-

LONDON—Messrs. Kegan Paul, Trench, Trubner & Co., Ltd., 38, Great Russell Street, W. C. 1.

New York—G. E. Stechert & Co., 31-33, East 10th Street.

BOMBAY-Messrs. D. B. Taraporevala & Sons.

Delhi-Messrs. A. H. Wheeler & Co.

PATNA-Messrs. A. H. Wheeler & Co.

CALCUTTA—Messrs. Thacker Spink & Co.; W. Newman & Co.; R. Cambray & Co.; The Book Company; A. H. Wheeler

& Co. and Kar Majumdar & Co.

.

Rs. A

Annual subscription ... 8 8 only (including postage).

Half-yearly , ... 4 8 ,, ,,

Single Number ... 1 0 per copv

Foreign ... 16 Shillings (including postage).

CONCESSION RATE:

For Professors, Lecturers, Teachers, Students, Registered Graduates, affiliated Schools and Colleges and for recognised libraries

Single copy ... 0 12

Copies at concession rate can be had only from the Manager, Calcutta Review, and not from agents.

Year begins from October; Half-yearly term from April.

For advertisement rates, agencies and for other particulars, apply to

8. K. RAY, M.A.,

Manager, Calcutta Review,

Senate House, Calcutta.

: INSURANCE:

Manchester Assurance Co.

now merged with the

Atlas Assurance Co., Limited.

[Incorporated in Great Britain.]

Triton Insurance Limited. Co..

Co., Eastern Insurance Limited.

Canton Insurance Office. Limited.

[Incorporated in Hong-Kong.]

Limited. Hong-Kong Fire Insurance Co..

[Incorporated in Hong-Kong.]

All Classes of Fire, Marine, Life, Motor Car, Burglary, Fidelity Guarantee, Personal Accident, Workmens Compensation and Lift (Third Party liability) Insurance accepted at current rates.

> JARDINE, SKINNER & CO., Agents, CALCUTTA.

FOR ANYTHING IN THE LINE OF

MICROSCOPES, BALANCES, BINOCULARS

SCIENTIFIC APPARATUS, Etc.

PLEASE SEND YOUR ENOUIRIES TO

BENGAL CHEMICAL

PHARMACEUTICAL WORKS, LD.,

15. COLLEGE SQUARE

CALCUTTA

HINDU FAMILY ANNUITY FUND

(For Bengali Hindus and Brahmos only.)

Established 1872 by Pandit Iswar Chandra Vidyasagar.

Accumulated Fund 15 lacs. 12 lacs. Annuity paid

GOVERNMENT OF INDIA ARE THE CUSTODIAN OF ITS FUNDS AND GRANT THE FUND CERTAIN FACILITIES.

Annuities for life for your wife and other dependent relatives. Secure. (1)

Old Age Pension for your own support in old age. (2)

Educational Scholarship for your children in schools and colleges.

(4) Marriage Dowry for your daughters.

For prospectus and particulars apply to the SECRETARY,

5. DALHOUSIE SQUARE EAST, CALCUTTA.

USE DAILY KESHRANJAN OIL IN YOUR BATH AND TOILET. IT COOLS THE BRAIN IMPROVES THE HAIR PREVENTS FALLING OFF

Exquisitely Aromatic and Refreshing.

Price Rupee One per phial.

Postage Annas Seven only.

Kaviraj

N. N. Sen & Co., Ltd.,

Ayurvedic Pharmacy
18 & 19, Lower Chitpur Road,
CALCUTTA.

MANAGING DIRECTOR

Kaviraj SAKTIPADA SEN.

Advertisement

in

The Calcutta Review

is

An Investment

FOR OVERWORKED BRAIN AND NERVOUS DEBILITY-

ASHWAGANDHA RASAYANA

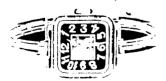
Price, Rs. 1-8 per phial. Charges 10 As.

B. L. SEN & CO.,

36, Lower Chitpur Road, Calcutta.

Medical Advice and Observer sent free.

HANDSOME 14-Ct. ROLLED GOLD EXPANDING BRACELET WATCH No. 75



A new fashionable and elegant wristlet watch of a small size just suitable for both Gents and Ladies obtainable in any shape desired, best Swiss mechanism. Correct timekeeper, guaranteed for 3 years, (No. 75) wristlet watch (in any shape) complete with Expanding Bracelet. Price Rs. 7 only.

(No. 76) 22 ct. 5 years guaranteed rolled gold wristlet watch with bracelet. Bs. 8-4 only.

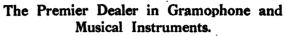
(No. 77) 22 ct. 10 years guaranteed rolled gold wristlet watch with bracelet. Rs. 10-8 only.

THE ENGLISH EMPIRE WATCH & CO.,
Post Box No. 1233; MADRAS.

PURCHASE YOUR GRAMOPHONES AND MUSICAL INSTRUMENTS

From

M. L. SHAW



5-1, Dharamtala Street, CALCUTTA.

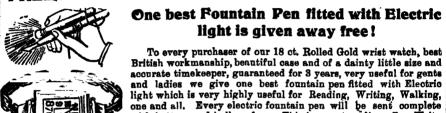
Municipal Market Branch—
7-c, Lindsay Street, CALCUTTA.



FREE!

For One Month Only!!

FREE!!!



with battery and bulb as free. This is an astounding offer, Write to-day. Price wrist watch with free offer Rs. 6-15. 18 ct. Rolled gold wrist watch alone Rs. 5-15. Electric light pen alone Rs. 2-8.

WOOD-WARD & CO., Mount Road P. O., Madras.

Everyone who believes in the supreme importance of a world-wide

movement for INTERNATIONAL

and

UNIVERSAL BROTHERHOOD

should read

THE THEOSOPHIST

An Illustrated Magazine of Brotherhood, Oriental Philosophy, Art, Literature and Occultism.

The Theosophist is the organ of the President of the Theosophical Society, a Society which is the heart and inspiring force of all movements working for the Brotherhood of Humanity.

The volume is in two half-yearly parts beginning in October and April.

SUBSCRIPTION RATE: India, Rs. 9.

N. B.—All Subscriptions are payable strictly in advance.

Asian Library NEW YOLUME

No. XIII

Now Ready

The Indian Colony of Cambodia

By Babu Phanindranath Bose, M.A., of the Viswabharati, Shantiniketan.

Traces with authoritative information the history of the spread of the Indian culture in Cambodia. Rs. 2-8.

Indian Teachers of Buddhist Universities. By Phanindranath Bose, M.A., of Viawabharati. Rs. 2-8.

The Indian Colony of Champa. By Babu Phanindranath Bose, M.A., of the

Viswabharati, Shantiniketan.

An interesting and informing work of research dealing with the colonisation by Indians in the early Christian Era at Champa in Further India—a great kingdom that existed in the land now comprising the southern portion of Annam (French Indo-China). Boards Re. 1-8. Cloth Rs. 2.

The Theosophical Publishing House, Adyar, Madras

Works by Benoy Kumar Sarkar

ECONOMIC DRYELOPMENT: Snap-shots of World-movements in Commerce, Economic Legislation, Industrialism and Technical Education, Pages, 36+428. Price Rs. 8.

Sociological Review (London): This book is of interest to us Westerns on its own marits of extensive knowledge of us; as well as for its presentment of Indian sutlocks beyond those commonly current. For instead of abstract politics we have here somerete economics, and seen as fundamental to politics, largely of a new kind. To the general student of economics this treatment should be suggestive; indeed at its best it is exemplary.

Prof. Sarkar has for many years been studying one European country after the other, and from many viewpoints; so his book is a result not only of reading, but of wide personal intercourse and travel, and full of economic information and social reflection from all these sources.

With all his descriptive cencreteness, there are large and bold generalisations, and frequent passages of social criticism and interpretation; and these ranging over France and Germany, from America to Japan, and of course from India to Britain, and home again; in fact leading up to a broad sketch of an economic policy, very comprehensive for young India.

Alike as widely informative, and as actively stimulating this book will be found well worth looking through and thinking over, both in East and West.

Professor F. W. Toussig (Harvard University, U.S.A.): You lay out a large program in a state-manlike way. * * What you aim to do would tax to the utmost the capacity of any set of people.

Professor L T. Hobhouse (London). Your point of view is in some ways novel to me.

Professor E R. A. Seligman (Columbia University, New York): Glad to notice that you do not share the opinions of your compatriot Gandhi about the industrial future. * * Very sensible and worth while.

THE POSITIVE BACKGROUND OF HINDU SOCIOLOGY. Book I. Pages 23 + 366. Rs 7. Book II. Pages 240. Rs. 6.

Professor Alfred Marshall (Cambridge): An important contribution to our knowledge of India.

Professor Sir Gilbert Murray (Oxford): Not only full of learning but full of points that may throw light on the problems of my own studies.

THE POLITICAL INSTITUTIONS; AND THEORIES OF THE HINDUS-Pages 24+242, Price Rs. 9.

Journal of the Royal Assatic Society (London): He seeks to give a readable account, and this he has done with frequent allusions and much elegant writing.

International Review of Missions (London): A remarkably incisive and learned piece of scholarship.

THE PUTURISMSOF YOUNG ASIA AND OTHER ESSAYS ON THE BELATIONS BETWEEN THE EAST AND THE WEST. Pages 10+899 Rs. 9

Manchester Guardian : An introductory essay and five astonishing monographs.

American Political Science Review: The wide range of subjects intelligently discussed reveals evidence of unusual versatility on the part of the author.

THE POLITICS OF BOUNDARIES AND TENDENCIES IN IN-TERNATIONAL RELATIONS Pages 18+827. Price Rs. 3-8.

THE POLK-ELEMENT IN !{HINDU CULTURE—Pages 204812. Rs. 13-8.

GREETINGS TO YOUNG INDIA: Messages of Cultural and Social Reconstruction: with illustrations. Pages 22+158. Re. 1.

CHUCKERYERTTY CHATTERJEE & CO., LTD.,

15, College Square, Calcutta.

THE CALCUTTA REVIEW

NOVEMBER, 1927

CONTENTS

	Page.
Banking in the Days of John Company—Pramathanath Banerjea, M.A., D.Sc., Minto Professor of Economics, Calcutta University	
Regeneration of Rural Bengal—Akshaykumar Sircar, M.A., Professor, Hughly College; Lecturer, Calcutta	
University ··· ···	141
The Reserve Bank of India and Private Capital—L. A. Natesan, M.A., B.L., F. R. Econ. S	159
Kindred Sayings on Buddhism—C. A. F. Rhys Davids, M.A., D.Lit., Chipstead, Surrey	178
The Place of Tradition in Religious Life—Satischandra Chatteriee, M.A., Lecturer, Calcutta University	195
Shakespeare (Poem)—Nalini Mohan Chatterjee, M.A., Lecturer, Calcutta University	201
Umar Khayyam—M. Kazim Shirazi, Lecturer, Calcutta University	202
Love (Poem)—Linwell Röhl, Minneapolis, U.S.A	217
In Memoriam (Professor Henry Stephen, M.A., D.D., Ph.D.)—J. R. Banerjea, M.A., Principal, Vidyasagar	
College; Lecturer, Calcutta University	218

CONTENTS

				Page.
Sir Asutosh and The Indian An Educationist	Universit	ties Bill of	1904	225
What I Am (Poem)—Mohini B.L., Solicitor, Calcutta	Mohan	Chatterji,	M.A.,	235
Review:				
Report of the Imperial Econ and Preparing for Mark the Empire: Fish—B.	ket of Food	lstuffs produc	_	237
OURSELVES:				
Kamala Lectures				243
The Indian Philosophical Con	igr es s	***	•••	24 3
Sreegopal Basumallık Fellow		•••	•••	243
Lord Haldane on Neo-Hegeli	anısm	•••	•••	244

A FEW COPIES OF THE

Sir Asutosh Number

OF

THE CALCUTTA REVIEW

are still available. Price Rupee One per copy. For students Annas Twelve only. V. P. charges extra. Please write to The 'Manager, The Calcutta Review,

Senate House, Calcutta.

The Calcutta Review

BENARES

THE CALCUTTA REVIEW

NOVEMBER, 1927

BANKING IN THE DAYS OF JOHN COMPANY

The early history of banking in India may be traced to a very remote past. On the eve of the commencement of British rule, there were bankers associated with the Imperial and the various independent or semi-independent provincial governments, while each district—and even each village—had its own banker. These bankers exercised considerable influence in their respective spheres of activity, and some of them rose to positions of great eminence and wealth. The Jagat Setts of Bengal, who were the hereditary bankers to the Nawab Nazims, enjoyed a reputation which spread far beyond the confines of the province.

The unsettled state of things which followed the Plassey debacle introduced elements of uncertainty into all the affairs of the people. The indigenous system of banking received a rude shock, and fell into a state of disorganisation. Many other difficulties ensued. The remitting of revenue from the districts to the scat of administration caused enormous expense and great deal of inconvenience. The merchants were obliged to incur large expenditure in carrying their wealth from one part to another. Besides, the various species of rupees in

They also acted, sometimes, as the custodians of the public treasury, and received regular askeries from the State.

circulation, and the different amounts of batta charged on them, were a source of immense trouble to the payers as well as the collectors of revenue.

In order to obviate these difficulties, and also to minimise the evil effects of a scarcity of specie, Warren Hastings proposed in 1773 the establishment of a General Bank for the provinces of Bengal and Bihar. As this was the first attempt to start organised banking in India under British authority, a brief account of this Bank, will perhaps be found interesting. The main features of Hastings's plan were as follows: first, a principal House or Bank, under the conduct of one or more responsible shroffs, with branches under the charge of gomastas in the districts, was to be established; second, collectors were to charge fixed rates of batta for the different kinds of rupees, and make over the coins to the gomastas of the Bank; third, a table of hundian or commission of exchange, was to be fixed for payment to the Bank, according to the distance of the place and the risk and charge of transport; fourth, merchants desirous of sending money from one part of the country to another. were to be permitted to make remittances through the Bank by means of bills; fifth, the managers of the Bank were to enter into an engagement with the Government and give security for the performance of their duties.3

The plan was accepted by the Council at Fort William, and two Indian gentlemen, Huzuri Mal and Rai Dayal Chand were appointed managers of the Bank. They declined to offer any security, but agreed to adjust their accounts every month and

The following rates were fixed Hughli, 4 per cent; Nudia, \(\frac{1}{2}\); Jessore or Burdwan, \(\frac{1}{3}\); Midnapur, \(\frac{1}{2}\); Birbhum, Bishnupur, and Muishidabad, 1; Pachete, 1\(\frac{1}{4}\); Dacca of Rajnehal, \(\frac{1}{2}\); Dinajpur or Purnea, 2; Rangpur or Bhagalpur, 2\(\frac{1}{4}\).

[·] Original Consultations (Revenue Board consisting of the whole Council), dated 13th April, 1773. Ms. Records of Bengal.

³ The former was a respectable merchant of Calcutta, the latter a banker of Murshidabad, a member of the family of Jagat Sett, who, from long experience has become intermately acquainted with banking business. Both of them were men of integrity, large substance, and extensive connections. Orig. Consultations, dated 23rd April, 1773. Ms. Records of Bengal. Both of them were invested with the title of Raja.

pay into the treasury any balance which might be left in their hands. A circular was addressed to the Collectors instructing them to afford the agents of the Bank every assistance in opening their branches, and in carrying on their business. They were also asked not to make any remittances by any bills other than those of the General Bank. The General Bank started work soon after the adoption of the plan. The profits during the first three months amounted to 29,560 sicca rupees. The Governor-General-in-Council decided that one half of the profits should be allowed to the managers, and the other carried to the Company's account. The Court of Directors, on being apprised of the establishment of the General Bank disapproved of the payment of considerable sums to the managers for conveying the revenues to the headquarters and then reconveying them to the districts. They also expressed the fear that the revenue might be diminished by the high batta on rupees being made permanent. They, therefore, refused to confirm the Regulation establishing the Bank, but urged the President and Council to make enquiries as to the effects it had produced.

A questionnaire was accordingly sent to the Provicial n of Revenue and the Collectors. Their answers Councils went to show that the Bank had in some conduced to the convenience of merchants, the circulation of trade and the reduction of the rate of interest, without having been productive of any mischief or It had led to another advantage. The remittance of the revenue had cost less since the establishment of the Bank than formerly. The matter was then fully discussed by the Governor-General and Council. Philip Francis wrote an elaborate Minute in which he pointed out some of the shortcomings of the Bank and attempted to prove that it had "not done the service or provided the benefit expected from it." Hastings, however, held a different view. 1 But as he was then in a minority

^{&#}x27; Hastings observed in the course of his reply to Francis's Minute: "Mr. Francis is of opinion that, allowing the present mode of remitting money to be more advantageous

in the Council, it was dicided in February 1775 to abolish the Bank¹

The General Bank closed its doors after an existence of about twenty months. During this period, it realised a net profit of somewhat less than two lakhs of rupees, one-half of which went into the government treasury.2 The abolition of the Bank was due in part to the hostility of the opponents of Warren Hastings, but mainly to the lack of imagination displayed by the Court of Directors. The same attitude was again exhibited when the Court prohibited the authorities in India in 1787 from lending their support to any banking institutions in Calcutta. Banking business, however, had already been started in connection with some of the European commercial houses. The oldest institution of the kind was the Bank of Hindusthan, established by Alexander and Co.⁸ It issued notes, the circulation of which was confined to Calcutta and its immediate neighbourhood. Two other institutions, namely, the Bengal Bank and the General Bank were started in Bengal not long

to the company and more beneficial to the country than what was before in use or any other which occurs, still, if it has not done all the service and produced all the benefit expected, it ought to be set aside, merely because it was framed by the late administration, and is now in use. For my part, I rather think that changes should be avoided unless utility of them can be evidently made to appear, and that to authorize the Board to set aside the present mode it is necessary some other system should be found, which it can be clearly shown, will be attended with fewer inconveniences and be productive of greater benefits". Orig. Consultations of Governor-General and Council, dated the 7th February, 1745.

¹ Despatch to the Court of Directors, dated the 25th February, I775. Ms. Records of Bengal.

² The abstract account of the General Bank, from the 1st June, 1773 to the 30th December, 1774 stood thus:—

Gross profits Sa Rs. 255,329 Charges Sa Rs. 93,264

Net profits Sa Rs. 162,065 One-half of the profits was Sa Rs. 81,032

Original Consultations of the Revenue Board and of the Governor-General and Council, 1773-75. Ms. Records of Bengal.

- This Bank had a long career. But it did not survive the failure of the firm of Alexander and Co., in 1832.
- This Bank was in no way connected with the Bank of Bengal. It ceased to exist sometime before 1800, but the exact date is difficult to ascertain.
- This institution was entirely different from the General Bank established by Warren Hastings.

afterwards. The work of the latter Bank seems to have been of considerable size. Neither of them lived very long. In the Madras Presidency, an institution bearing the name of the Carnatic Bank existed in 1791, but very little is known about its activities.

The need of a properly constituted bank was felt all the more keenly because of the financial embarrassments of the government. In 1801, H. St. G. Tucker, Accountant-General of Bengal, addressed a letter to the Governor-General, in the course of which he observed: "It cannot have escaped observation that the credit of the Government in India has very rarely been such as might reasonably be expected from the general prosperity of its affairs; that the value of its securities is liable to great and sudden changes from causes altogether disproportionate to the effect; and that difficulties sometimes occur in raising funds for the public service with the occurrence of any circumstances of a nature to account for difficulties."2 He wrote further: "There is not in Bengal, as in the commercial countries of Europe, an artificial capital, arising from credit, or the circulation of a paper currency. There is no establishment for facilitating the means of borrowing and equalising what is termed the money market. is no fund to which the government or individuals can have recourse for temporary purposes, and the consequence is that when any sudden emergency occurs, the Government is not only at the discretion of those who possess capitals, but it will sometimes happen that there is not a capital of that extent which can immediately furnish the necessary aid."3

These inconveniences could be removed by the establishment of a bank. The experiment of private banks had not succeeded, and there would, the Accountant-General thought, be

¹ The General Bank went into liquidation in 1792. Vide Cooke, Banking in India.

² Letter to Marquis of Wellesley, dated the 14th July, 1801.

^{*} Ibid.

objections to a government bank.¹ Tucker, therefore, suggested the establishment of a proprietary bank under the immediate control and guarantee of the Government. Much time elapsed before the proposal received attention. In 1806, a despatch was sent by the Government of Bengal to the Court of Directors recommending the scheme of a bank. But before any reply was received, the Bank of Calcutta had opened its business. Its initial capital was fifty lakhs of sicca rupees, divided into five hundred shares of ten thousand rupees each. The Government of Bengal contributed one-fifth of the capital. The management of the Bank was entrusted to a Board of nine Directors, three of whom were nominated by the Government and six by the shareholders.

This Bank received its first charter on the 2nd January, 1809,² on which occasion its name was changed to that of the Bank of Bengal. The charter indicated the objects with which this Bank was created. The amount of stock which might be held by any proprietor was limited to one lakh. The advances to be made by the Bank to individuals were also limited to a lakh, while the advances to the Government were restricted to five lakhs. The rate of interest was limited to a maximum of 12 per cent. The Bank was prohibited from

On the question of a private bank, he observed: "The General Bank which was dissolved some years ago offered sufficient security to the public, for among its proprietary, were some of the most wealthy inhabitants of this place; but its constitution did not provide for a faithful administration of its affairs, and the assistance of the government was wanting to give life and vigour to its circulation." The ebjections to a government bank were summarised by him in these words: "It would not be distinguished from the government's treasury: the public would consider it an engine of State; it would be involved in all the transactions of the government, and there is reason to apprehend that the public under these circumstances would not have sufficient confidence in it. It would necessarily participate in the government's distresses, and its credit would be cleast when there might be the greatest occasion for credit in times of public calamity." Ibid.

As doubts had arisen as to whether the governments in India were competent to establish banks within the local limits of jurisdiction of the Courts established by royal charters, an Act of Parliament was passed in 1807 removing such doubts and empowering the authorities in India to start banks with the approval of the Court of Directors and the Roard of control.

engaging in trade or in any kind of agency for the buying and selling of public securities or of goods.

It was required to maintain a cash reserve of at least one-third of the outstanding liabilities payable on demand, and the total liabilities of the Bank were limited to the amount of its capital. This last rule had the effect of restricting the note issue to a maximum of fifty lakhs. The Government reserved to itself ample powers of control. Besides being represented on the directorate of the Bank, they had the right of inspecting its records, while the office of the Secretary and Treasurer was held by a covenanted servant of the company.

The benefits expected from the creation of the Bank were fully realised. It helped the Government in withdrawing a depreciated currency; money became more easily available for the needs of the community; the scarcity of specie ceased; the rate of interest diminished; and the Government was relieved of much of its financial difficulty. Between 1829 and 1832, the Bank of Bengal passed through a severe crisis owing to commercial panics consequent on the failure of some of the largest of the business houses of Calcutta. The Bank's capital was increased to seventy-five lakhs in 1836. A new charter was granted in 1839, which remained in force, with slight modifications made in 1854 and 1855, till the end of the Company's rule. The Sepoy Mutiny imposed a great strain on the resources of the bank, and it was only the interference of the Government which prevented the adoption by it of a disastrous policy.

A Government Bank was started in Madras in 1805. This Bank, which was managed by officers of the Government conducted business on a small scale and in an unsatisfactory manner. It was not until 1843 that the Presidency Bank of Madras was established. The plan was similar

Auber, Analysis of the constitution of the East India Company, p. 57.

It involved itself in considerable danger in attempting to protect the firm of Alexander and Co., and was obliged to infringe several provisions of its charter. Vide Brunyate, An Account of the Presidency Banks.

to that of the Bank of Bengal. The initial capital was thirty lakhs of rupees, of which three lakhs were subscribed by the Government. The management of the Bank was in the hands of nine Directors, of whom three were appointed by the Governor-in-Council at Madras, and the remaining six were elected by the shareholders. The Bank enjoyed the privilege of note issue.

Banking institutions on organised lines did not come into existence in the Presidency of Bombay until a much later date than in Bengal. The first attempt made in this direction was not crowned with success. An Act was passed by the Governor-General-in-Council in 1840 establishing the Bank of Bombay. The capital was fifty-two lakhs and twenty-five thousand rupees, divided into 5,225 shares, of which the Government of Bombay subscribed three hundred. The constitution of the Directorate was similar to that of the Bank of Bengal and the same kind of business was transacted by it. Its note circulation was limited to two crores.

The connection of the three Presidency Banks with the financial system of the country was a fairly intimate one. They performed the banking business of the Government, while their right to issue notes directly affected the currency system. Several other institutions had, in the meanwhile, come into existence through private enterprise. These banks facilitated the foreign trade of the country, and considerably influenced its money market. Their activities, however, had no direct bearing on public finance.

PRAMATHANATH BANERJEA

Vide Cooke, Banking in India and Brunyate, An Account of the Presidency Banks.

REGENERATION OF RURAL BENGAL

(Steps that have been taken)

The regenerators of rural Bengal seem to have failed to lay sufficient stress on the economic causes of the decline of the village. Captain Petavel of the middle-class unemployment fame and Mr. Gurusaday Dutt of the Bankura co-operative irrigation fame, may be regarded as pioneers and the only practical workers in this direction in recent times; but even they seem to have scarcely reached the root and to have only touched it in an incidental way—the former for finding out a solution for the middle-class unemployment and the latter in trying to ameliorate the economic distress of the agriculturists in certain parts of Bengal, due to the frequent dearth and everpresent uncertainty of rainfall.

It is true that recently Dr. R. K. Mukherjee has been engaged in the investigation of rural problems of India but his investigations have been more extensive and theoretical than necessarily fruitful for any practical solution of the problem of the Bengal village. Mr. Benoykumar Sarkar also seems to have been considering some of the proposals affecting the rural areas incidentally, in connection with his deliberations on the industrial development of the country—that is whether the development of the industrial townships or the attention to agricultural improvement will be more consonant with the economic progress of India. The Swaraj party also have issued a programme for village reconstruction for their ulterior political motive.

Lastly, the Government which have been recently keen about the desolated state of the rural areas, are trying to encourage the local bodies to take steps for their reconstruction by the palliatives of sanitation, communication, co-operation, irrigation and education. But the administrators also are avoiding

the real issue either as inopportune to raise or impossible to solve at present. So their measures are not going to the root of the disease, and unless they go there, no real and radical cure is possible.

But to anyone who wants exclusively to think of the causes of and remedies for the decline of rural Bengal, for the practical solution of the problems, it may appear that the nature of the socio-economic revolution which is the most fruitful cause of the decline of the village has not been properly analysed, and that therefore the remedies proposed or attempted cannot be expected to be fully efficacious.

Mr. G. S. Dutt has been eloquent over the Spenserian analogy and thinks that vitality can be instilled into the body-social of Rural Bengal, through the wonderful elixir of organisation alone. It will be perhaps for a medical doctor to tell him that all remedies including the *Makaradhwaj*, the panacea for all diseases and the last remedial attempt in desperate cases, have been found to be ineffective in the life of the patients if there is no latent vitality or when the sinking vitality is under the cumulative force of deadly attacks, environmental or constitutional.

Organisation is a good thing and it might have been the experience of the philanthropic and benevolent district officer of Bankura to personally observe the wonders of organisation in respect of co-operative irrigation in that district. But he need not forget in his enthusiasm that this vitality-giving force to the happy rustics of Bankura came from outside at the start at least, if not maintained by a constant outside watch and impetus. It may also be necessary to wait for a long time to conclude whether the organisation will survive the departure of the resourceful personality who supplied the essential elementary force for it.

Ever since the brain of rural Bengal has been paralysed by the accident of the socio-economic revolution of the last half of the nineteenth century when the flowers of the village left their rural home in quest of the golden grail of remunerative

employment in towns, or the honourable existence away from the zamindari zulum; under the effective Pax Britannica, the body-social of the village has been running towards dissolution; and the leaderless villagers have been left victims to the unscrupulous agents of lawyers and zemindars, without any power of They can be roused from this initiative or concerted action. comatose state only by their natural leaders, the scions of the respected families, who or whose ancestors left the village but have still kept some sort of relationship to it by their occasional pilgrimage to it or by their sentimental annual expenditure over their ancestral residence or on the occasion of the national festival of Bengal, the great Durgotsav. Unless these men who have been enlightened by education elsewhere and who are earning their livelihood elsewhere can be induced to come back to the village, no extraneous attempt at organisation of the village can be successful permanently. No doubt a benevolent official can do much through his powerful persuasion or patronage, prestige or authority, but his attempts will not be permanently and fully successful unless the villagers themselves can keep the fire, so kindly kindled, burning on, by the constant supply of the fuels of their own efforts. The same can be said of the patriotic party-programme of the political enthusiasts, which may be of use at the outset in creating a healthy stir in the moribund village life, but it is not much of a hazard to say that their village reconstruction scheme is foredoomed to failure, if for no other reason, but for the ridiculously scanty resources of the framers of the scheme in comparison with the stupendous task advertised to be undertaken. Their resources are in the unsophisticated young men recruited for the purpose as volunteers through the force of hoodwinking rodomontade and in the money raised from the public for the purpose. But the futility of their attempts, the insincerity of their propaganda and the diversion of the fund to other party purposes, election expenditures, maintenance of party organs or subsidising political workers in the moffusil, as suspected and openly alleged by many, are surely to disgust

and disillusion in no time those who pay money to them and those who are ready to work for them.

Some among these party men must be sincere in their intention, and sacrificing and philanthropic in their instinct, but their attempts as well as of all others who want to be friends to the village will be fruitless, unless backed by the only thing essentially necessary for the reconstruction of the village society, namely, creation of an interest of personal character in the rural areas among the educated Bengalees for supplying the brain-power to the body-social there.

After the above destructive criticism of the steps for the reconstruction of the village in a general way, it may be necessary to consider each of them separately and with a view to some practical purpose.

The first and the foremost of the problems of rural Bengal is the Land Problem. The village, it has been seen above, has suffered grievously in more ways than one by the land system of Bengal. When the eyes of the administrators were opened to the disastrous consequences of the P. Settlement on the villages, they tried to do what was possible under the circumstances by following the way of the least resistance. The tenancy acts of 1859 and 1885 were passed in spite of the strenuous and concerted opposition of the zemindars. The idea of the record of rights, the revenue money order, and placing the Chowkidar solely under the Government for the protection of tenants, was gradually given effect to or matured. All these methods however have failed to give the protection due to the tenant from the state, because they are only half measures, because the influence of the zemindar is very great and because the tenants are ignorant and bereft of their natural leaders, the intelligentsia of the village. The first man in the village is still the halfeducated and unscrupulous "gomostha" of the zemindar, and anything however necessary for the village or however just to the tenants, if it happens to be against the interest or amour propre of the zemindar, must be discouraged by his man. There

is no longer the old Mogul time Kanungo to look after the rights and records of the village on behalf and the state. Recently this has been discovered, and for filling up the gap in the link between the village and the state, various measures have been initiated, such as the process of survey and settlement and the record of rights and the Chowkidari unions, and the union boards. The first when completed will be the greatest boon to the Bengal cultivator ever since the year 1793 but during the period of its compilation, the effects on him, both financial and legal, would be extremely harassing in character. ministrative institutions—the union boards—are not of much help to the villagers at present though they may have great potentiality which will not come to fructify unless and until the natural leaders of the villagers, are attracted towards them and to their village homes. At present they are being dominated either by the zemindar's official or by his nominee.

The harm done to the finance of the village by the P. Settlement, has been made the subject of a side-attack by the Government through the local cesses on land. No doubt this is a move in the right direction but it is not only a half measure but also objectionable on two grounds—first a share of payment has unnecessarily and unjustly been placed on the tenant, and secondly in some places it is alleged that the zemindar's share is shifted illegally on the shoulders of his tenants while almost everywhere it has been done so in an indirect and clever way—through the enhance ment of rents. Thus it seems that the agrarian measures taken up to date by the Government have failed to cure the evils in the Bengal villages due to the revolutionary land system of 1793.

On the whole it may be said that what has up to date been done regarding the land system of Bengal for the benefit of its villages is almost insignificant in comparison to what is absolutely necessary to do.

Many other schemes have been proposed and are partially being worked in favour of the villagers and in connection with

land. It is true that some of them have for their purpose not so much the village reconstruction as agricultural improvement. But as improvement of the Bengal rural areas depends mostly upon that of Bengal agriculture, these schemes may be fitly considered from the point of view of the village reconstruction.

Here also the state has been the pioneer, and much good has been achieved, but also much unnecessary expenditure of money as well as energy, has occurred.

The following are the different organisations through which the state has undertaken to improve the lot of the agriculturist:

1. Co-operative Societies.—These are the most important and meritorious organisations for village improvement. They have proved congenial to the soil, and are growing rapidly. By supplying capital at a moderate rate of interest and by teaching the villagers self-help and the efficiency of combined efforts, they have been of immense benefit to the villagers, both materially and spiritually.

This spirit and practice of co-operation have a brilliant future in the history of the Bengal rural areas. The Co-operative Societies are being utilised not only for the purpose of relieving the so-called victims of the village mahajans, but for many other purposes; and their field for operation in the cause of protection as well as production is sure to widen in course of time, in the shape of sale societies, storing societies and industrial societies—some of which have already sprung up.

2. Irrigation.—In a land like Bengal where rice-cultivation is the chief industry, and where clogged water is the chief source of danger to sanitation, ready supply of water as a safeguard against droughts which so often destroy the crops, and annual flooding to prevent the growth of the malarial miasma in the stagnant pools and marshes, are of immense necessity, economic as well as sanitary. Here it must be admitted, that the Government in the past has not been as vigorous in its activity as the situation demands. (Cf. Bentley's evidence before the R.

Commission.) Some fifty years ago projects were made for undertaking the irrigation works in certain rural areas of Bengal (Hughli) for the combined purposes of sanitation as well as agricultural supply of water. In 1870 the Sanitary Commissioner of Bengal reported that—

"... the mostimportant of all causes of malarious fever is...the insufficient drainage and the partial or complete obstruction of rivers... The remedy lies in effectual drainage...."

Mr. Adley made a comprehensive drainage scheme for the Hughli District as early as 1870. But the programme has yet been far from being fully realised. It may be thought that if a vigorous policy in this direction would have been taken up by the Bongal Government 50 years ago, the condition of the villages in some parts of Bengal would have been much different by this time.

In this respect the Government has no doubt done little, but the people concerned and their so-called leaders, the zemindars, have done still less.

The apathy of the people is explained by their ignorance, inertness and poverty and lack of organising capacity through being leaderless; and the indifference of the zemindars may be explained by their absenteeism, and security, from any possible loss and for an ever-increasing unearned income, through the process of time, progress of society, and development of communication and the spread of international trade. Prices are rising, demand for land is increasing and rack-renting in spite of all tenancy laws, are increasing the incomes of the zemindars rapidly. Why should they care for the rural areas from their comfortable palaces in the city!

3. Communication—railways, roads, khals.—Rivers and minor streams are the natural roadways in a land like Bengal intersected by so many of them in all the different directions. In East Bengal they are provided by nature in more bountiful scale than in West Bengal, but even here these natural means of communication are not negligible, and with slight supplementary

care and labour of men they may be made as extensively serviceable as in East Bengal. To these served the track roads for pack animals, as feeders, and they did not require any artificial arrangement but only convenient short cuts and avoidance of any injury to cultivated crops. Very few roads were there when the British came into the country and those were made more for military purpose than for trade facility or ordinary communication. The new administrators of Bengal felt keenly for the want of good roads for more than one reasonsupplying the necessity for foreign trade as feeders to the newly laid railway lines as well as for carrying goods to the marts which were the supply bases to the great port of Calcutta, and also for administrative convenience by serving as high-ways for the official tour as well as bringing the people in convenient touch, with the administrative centres, the zillah and mahakuma British courts, and for military purposes too.

To remove this keenly felt want which the District officials never failed to mention to the superior authorities, they gave every sort of encouragement in their power to the zemindars and the other notables for subscribing funds for the creation of roads and numerous thoroughfares in Bengal are the results of such encouragement.

Unfortunately this very beneficent move in the interest of the rural people, quite contrary to all expectations, was left to indifferent treatment afterwards, though a large contribution was made compulsory for this end, in the shape of the Road Cess and the Public Works Cess from the agricultural income in the rural areas, and though the management of this fund and the roads were placed in the hands of the local and district boards, self-governing bodies constituted for the purpose and similar other ones.

It is regrettable that with the advent of the complete self-government for local purposes, viz., the obligatory election of the non-official chairman in the district board, the complaints regarding the roadways are becoming more numerous and serious.

It may be interesting to note in this connection that many of the old roads have altogether disappeared through their gradual occupation for the purpose of cultivation by the unscrupulous village husbandmen; and ultimately have been assessed by the zemindars to increase their rent roll.

At one time the waterways of Bengal were very cheap and good means of communication and transportation. Many of them have been silted up by process of nature and some have been obstructed by human activity. Up till recently this aspect of rural service through opening them has been neglected by all. Recently however attention has been drawn in this direction and schemes for the purpose of irrigation and sanitation are being hatched which may react on communication also.

4. Sanitary improvement.—This is from one point of view the most urgent item in the village reconstruction as well as the most difficult obstacle to village improvement.

Early in the latter half of the nineteenth century the deteriorated sanitary conditions of some of the rural areas in the presidency was painfully impressed upon the local administrators through the horrible and extensive havoes of malaria, and the necessity for taking immediate steps was felt by all concerned. Various suggestions were made by the reports of the constituted bodies for the purpose, and from the responsible officials of the districts as well as the Indian sufferers of the fell disease. But it is very unfortunate that for more than 50 years have passed away since, and yet the disease is going on doing its nefarious deed of desolating the once most flourishing part of the Hindusthan, and that with cumulative force in geometrical ratio. Annually 10 lacs men are victimised by malaria and the manpower in the rural areas are being annually reduced in such a rate that it may not be the work of a morbid imagination to think that another three generations and the indigenous population in the malaria-stricken rural Bengal, will exist only as historical reminiscence.

It must be a matter of regret that in this respect at least

the British Government has not been able to discharge its responsibility to the people in a perfectly satisfactory way. The means and measures, the state has taken in this respect, seem to be extremely inadequate in comparison with the vastness and importance of the task to be done.

(a) Dispensaries.—With the advent of malaria, the officials became eager to see dispensaries and hospitals established, and encouraged this movement in diverse ways. As a result a number of hospitals and dispensaries was established, in the sixties and seventies of the last century, some under official and others under private auspices. But their number did not commensurately grow up in course of time and now-a-days the task of their management as well as of their increase has been left to the District Boards which require local contribution in part before undertaking the foundation of a new one. Thus many areas inhabitated by the poor or ignorant of the ways of the District Board, though in urgent need of dispensaries have not got them.

However, it must be admitted that so long as the physical conditions of the local areas will continue to make them breeding grounds for malaria, the dispensaries and hospitals can only serve as curing and not preventing organisations. The cure is bound to be of temporary utility as unhealthy atmosphere surrounding the victim will make him ill again and each repetition of the attack will make the cure more and more difficult.

The Inspector-General of Hospitals, in his report on the charitable dispensaries of Bengal for 1871 describes:

- "...as might be expected, the individual, as long as he remains exposed to the same conditions which originally caused his malady, is liable to repeated attacks. Step by step the constitution is undermined and the seeds of fatal organic disease implanted...it is too much to expect quinine or any other drug to prevent their accession, or cure the disease once for all."—Hunter, Statistical Account of Bengal, Vol. III.
- (b) Quinine and encouragement to its use.—The next step that was undertaken by the state for the relief of the people

in the malaria-stricken areas, was the distribution of quinine and encouragement to its use through instructive literature. As early as the seventies of the nineteenth century the special efficacy of quinine in curing and preventing malaria was doubted by competent European authorities. The Civil Surgeon of the Hughli district reports in 1871 that—

"the quinine, although it does much to check the accession of fever as an anti-periodic, is ill-suited to the constitution of the ill-fed labouring population...the poorer classes are more amenable to treatment by native than by European medicines."

And ever since there has been an idea among the Indians, that the frequent use of the drug has been a cause with a cumulative force of debilitating the physique of the people of Bengal. But it must be admitted that for curing and to a certain extent for preventing malarial fever, still quinine is the most efficacious weapon.

It is to be regretted that the efforts of the state or the local bodies under it have not in the past been commensurate with the needs of the rural population in this respect. The cost of procuring the medicine by them has not been made equal to their means; sufficient propaganda has not been made to bring its efficacy to their knowledge; and the necessary number of experimental or inducing centres have not been opened.

(c) Drinking water.—Many of the rural areas suffer piteously for want of good drinking water, and to quench thirst in them there is no other alternative but to resort to filthy pools and insanitary tanks. The Indian newspapers for the last quarter of a century have cried hoarse over this distressing accompaniment of the rural life, and the government has recently recognised the need of initiating a vigorous policy in this direction. But as yet the realisation of any comprehensive programme is not in sight. Recently schemes have been made for giving loans to the District Boards for utilising the money in water supply, and sanitary and economic surveys have been made for excavating canals, and some of the projects have been

definitely adopted. It is regrettable that the excavation of tanks through the subsidy from the District Boards which were doing so useful work has been abandoned, in favour of tube wells. The tube-wells are surely better for the supply of drinking water, but the re-excavation of tanks also are absolutely necessary for sanitation and economic irrigation and fish-industry.

(d) Clearance of jungles.—The cutting of jungles has drawn attention of the well-wishers of the people in the rural areas. But for two reasons this seems to be impossible, if not unnecessary. The rank growths in the rainy season are so natural in Bengalthat to cut them off would require the expenditure of money and energy, not within the resources of the villager, especially as the villages are depopulated in many places. Any external help from the District Board or from any philanthropic popular organisation will hardly be sufficient to cope with the work, which is to be done annually. Even in the municipal areas in many cases the task remains undone for want of fund, energy or willingness of the people.

The necessity also does not seem to be so urgent. If the mosquito theory is not accepted as the prime cause of malaria, then more than half the force of the argument for cutting jungles is gone. Even if Sir Ronald Ross's theory is accepted in toto the fact remains that the breeding ground for the mosquito is the pool and the filthy tank. The question of dampness is to be tackled not primarily through cutting the jungles but through efficient drainage and even that Dr. Bentley thinks unnecessary.

With regard to the importance of the annual clearing of the rank growths to prevent malaria, much doubt exists in the mind of those who are, like the people in the Arambagh subdivision of the Hughli district, living in comparatively high and dry sandy soil where even in the rainy season there is no rank vegetation worth the name and yet where malaria exists in its deadliest and most persistent form. (e) The Mosquito Brigade.—The mosquito brigade for killing mosquitoes appears ridiculous even to the simple minded rustics who compare its attempts and suggestions, with the advice gratis given by a clever man to one of his bug-pested neighbour which was to the effect "carefully look at your bed, take away the bug where found out, and then put its head between two of your nails and finally crush it with due pressure."

It is beyond their comprehension and the comprehension of many others, what earthly reasons impelled sensible men to make a costly organisation for killing the mosquitoes, when the condition as the perennial source of their growth remains, and when they are the unavoidable natural accompaniments of the climate and soil of the country. Mosquito is absolutely irradicable by any direct action and any indirect action for the same purpose is not so important, so long as the potent causes of its breeding continue in force.

In the town areas there are enough of the pest but they seldom grow to be of the poisonous anopheles type, because the conditions there are not favourable to such development.

The idea of advising the people of rural areas to use mosquito curtains is equally ineffective, as the people for their very comfort use these curtains whenever possible, and as their personal experience shows them that even their well-to-do neighbours who never sleep but in curtain, are not spared the pangs of the disease at all. Instead of a hasty declaration, if the authorities had taken care to ascertain the efficacy of the mosquito-curtains in preventing malarial fever through the personal experience of the Police Sub-Inspectors in the malarial areas and the village school masters, much loss of unnecessary breath might have been spared to them.

People use these curtains, advised or not, whenever possible as a source of comfort; and those who habitually use them are as much the victims of malaria as their unfortunate poor brethren.

But with regard to the mosquito affair, the most ridiculous fad is the idea of spending money in propaganda work through magic lanterns and peripatetic sanitary advisers for teaching the people to be careful about the particular class of mosquito which is to be identified as the mortal enemy to their health.

The people do not require such lectures, they forget them as soon as they are delivered, chuckle over the fad in their Baithakkhana and wonder at the paucity of work, in the hands of the Sarkar to let them have time for such ridiculous trifles.

They and many of those who think for them, have the only consolation for the loss of money in this direction, that the fad will soon pass off, as many others including the famous hookworm campaign have done.

In the meantime however the loss of money is objectionable, for the work which, even if granted to be necessary, could be done much more cheaply through printed leaflets of the Government.

It is not intended here to challenge the truth of the prevalent scientific theory regarding mosquito as the immediate cause of the attack of malarial fever; neither is it within the competence of a layman to do so. But from the common sense point of view it may be doubted whether while the perennial cause of malaria will remain untackled, the eradication of the offending mosquito will be of any use and also whether such eradication is at all possible.

The appearance of the malarial epidemic was synchronous in places with the obstruction to natural drainage.

(f) The drainage.—The importance of proper drainage in eradicating malaria, was recognised as early as the seventies of the last century by competent authorities in the Hughli district. In 1870 the Sanitary Commissioner of Bengal reported that... the most important of all causes of malarious fever ... the insufficient drainage, the partial or complete obstruction of rivers... the remedy lies in effectual drainage."

Mr. Adley made a comprehensive drainage scheme for the Hughli district as early as 1870.

Col. Haig also suggested irrigation and drainage scheme for preventing malarial fever.

Soon after schemes were made and some works, such as the Dankuni, the Eden and the Rajapur schemes were begun. But very unfortunately a vigorous policy in this respect was not continued by the State. Perhaps the efficacy of such works in getting the localities rid of malaria was lost sight of, and the drainage was associated with the idea of economic irrigation only.

Thanks to Dr. Bentley, the ex-Director of Sanitation, the flooding of the malaria-stricken areas for removing the poison, has again attracted the notice of the Government, and some experimental work, it is said with good results, has been initiated under its auspices, as in Jungipur in the Murshidabad District. Dr. Bentley however regards draining as not such a necessity.

It must be admitted that in this respect the administrators of the country may be rightly charged with careless apathy and culpable negligence. But fortunately their attitude has recently changed for the better.

(g) Sanitary Organisation by the Government.—The last thing that should be discussed in this connection is the sanitary organisation by the Government. In this province no governmental department, perhaps excepting the defensive ones, is of so much public utility as that for sanitation. But its sanitary organisation is certainly a subject of criticism and its ideas in many cases are counter to the opinion of the people, and in some at least unsuitable to the local circumstances and useless to the people.

Up to the present time the organisation may be credited with some laudable enterprises and successes. Valuable theories regarding the cause and cure of malaria have been promulgated, and the people of the country must be immensely thankful to Dr. Bentley, Director of Public Health, whose pronouncements by their clearness and boldness have made deep impression upon them.

The efforts of the department have been successful in preventing small-pox to a large extent through vaccination, and the cholera epidemic to some extent through watch and care. But it must be admitted that with regard to malaria—the most dreadful scourge in rural Bengal—they have not been able to do much. This is not due to any lack of enthusiasm on the part of the workers but for want of means. The flooding and the drainage scheme cannot be given effect to without the expenditure of vast sums of money and the ways and means for that have not been provided for in commensurate scale by the state.

(h) Agricultural Department.—The Government has established a department for improvement of agriculture in India and it has its provincial organisations under the various local governments. Its function is to make experiment in seeds, manures, etc., to disseminate knowledge regarding scientific agriculture, selection of seeds, prevention of blight, and pests, and manuring, to give practical lessons in agriculture through model and demonstrating farms and train students in agriculture.

In a country like India of which at least of the population depends upon agriculture for their livelihood, the necessity for an organisation under the state for looking after the agricultural interests cannot be too much emphasised. At the same time it must be said that up to this time the benefit has not been commensurate with the expenditure of the effort and money in this direction.

The reason is to be found in the wrong tracks the department has followed in many respects and even now following. In India agriculture is a primitive industry, and the intelligent peasants are well versed in it in their own way.

(i) The Schools and Pathsalas.—With the consolidation of the British rule in Bengal there came a craze for education which is still continuing with unabated heat. Officials and non-officials joined hands in seeing the rise of schools and pathsalas throughout the whole length and breadth of the presidency.

Men like Iswarchandra Vidyasagar or Bhudebchandra Mukherjee spared no pains or time in the cause of the spread of education as the most beneficent move for the people. But now it may be doubted whether the expected benefit has been fully realised so far at least as the rural areas are concerned. The education imparted seems to have developed very little economic capacity or social responsibility in the village and perhaps it has indirectly harmed them through the emigration of the capable men elsewhere in quest of service and profession. No one can gainsay that education is necessary for all social progress and the case of Rural Bengal is not an exception. But it is pardonable for one to be cynical re the present system of primary education, and to be doubtful re the wisdom of founding ill-equipped new high schools in depopulated and unhealthy localities.

(j) The Union Boards—This study re the steps taken for the improvement of Rural Bengal cannot be finished without reference to the Union Boards. The advent of Pax Britannica tended to destroy the primary administration units-the village communities-everywhere in India. But nowhere this destructive tendency was so much fruitful as in Bengal. The reasons may be found in the careful over-centralising policy of the state, in the new land system of Bengal and in the socioeconomic causes which resulted in the desertion of the rural homes by the intelligentsia. Later on however the eyes of the administrators were opened to this and after due deliberations steps were taken for the resuscitation of village communities under the new denomination of the Union boards. steps have been taken in the right direction but much spade work is yet to be done before the Union boards will become the primary units of local self-government in Bengal. At present they are very often dominated by undesirable persons or absentees. The difficulty in the way of making the successful units of rural administrative oganisation an efficient agent of rural reconstruction is manifold and great. Good and able men do seldom live in villages, the power granted to the Union

Boards is not tempting to many, and the financial resources are very scanty. Of all these the first is the most serious and on the solution of it will depend the future of these necessary organisations; the guidance of the Government Officer and the District Officer at present is absolutely necessary but by an amendment of the law further concessions may be given to the deserving Union Boards as an encouragement to others. As the policy of the Government and the attitude of the administrators have all along been sympathetic there is no difficulty about the concession of such powers; and the financial difficulty may be removed by ear-marking a large share of the cesses realised from the locality for its improvements and abolishing the Local Boards.

AKSHAYKUMAR SIRCAR

THE RESERVE BANK OF INDIA AND PRIVATE CAPITAL

- Those who have followed the deliberations of the Joint Select Committee on the Reserve Bank Bill will have realised that the Draft Bill which emerged out of their sittings has not been altogether conclusive. Several important questions. such as the admissibility of private capital, management, the principles of reserves, have not yet been decided. Of the importance of these questions there can be no doubt. experiences of other countries tell us that where they have arisen after the formation of the central bank, the opposition met with was so great that all proposals for reform were nipped in their very inception by the unbroken front of the vested interests. That was particularly the case when the Reichsbank on a shareholder's basis was sought to be changed into an entirely State-owned bank. The time is therefore most opportune and propitious for a thorough examination of the problem in all its aspects. It is fortunate that the Reserve Bank Bill has not so far excited anything like the stormy discussions that characterised the Rupee ratio question. An attempt is made in this paper to examine some of the various questions connected with the admissibility of private capital into the proposed Reserve Bank. They have not been approached with any preconceived notions, and sought to be justified by selecting suitable arguments and statistics. Neither have any pains been taken to accommodate the conclusions to the greatest common measure of the different groups of diverse opinions.
- 2. On the broad question of State intervention in the direction of banking affairs no time need be spent. The "Policeman Theory" of the State has long been given up as inadequate and it is sufficiently well-accepted that a central bank with the management of the cash balances and of the note issue in its hards, must necessarily stand in a somewhat close relation

to the Government. These two privileges make it necessary for the State to interest itself actively in the operations of the central banking authority.

The question has passed the stage of whether the public ownership of central banking or the regulation of it in private hands is necessary. The State has been held justified in intervening in all cases where the motive of self-interest among the banks is pursued to a degree that well-nigh threatens to affect the wider social interests. From the very nature of its operations as the Government's fiscal agent, the bankers' bank and the pivot of the monetary system of a country, the central bank affects the whole national well-being and invites supervision and correction, as occasion demands, by public authority. In all other matters, laissez-faire or the "hands-off" attitude is accepted as a sound principle of economic conduct.

3. Theoretically considered, all attempts at public control over monopolistic organizations—central banking is essentially monopolistic in character—whether direct or indirect, are likely to be only very imperfectly successful. Since, therefore, to regulate oneself is obviously easier than to regulate somebody else, national interests would certainly be advantaged, if the Government itself owned and operated the central bank. But a serious objection has been levelled against Government ownership and operation on the point of efficiency. As it is fairly widely held, we shall do well to examine this criticism.

We may start the discussion with an observation of the Committee of the American Federation:

"There are no particular reasons why the financial results for private or public operations should be different, if the conditions are the same."

This statement may be further amplified by saying that whether the service is provided by a private company or by a public governmental authority, the actual running of the business must be similar. An expert staff must be appointed,

Beamish, Municipal Monopolies, pp. 289-90, quoted in Pigon's Wealth and Welfare

controlled in a general way, in the one case by a Committee of Directors chosen by the shareholders, in the other by a Committee appointed—perhaps by direct, perhaps by indirect election—to represent the public. On the whole, as Professor Pigou observes,

- "the efficiency of the management in public or joint-stock enterprise—apart, of course, from special cases of incompetent officialdom in certain small towns—is likely to be pretty much the same."
- 4. Another point is that central banking is a very profitable undertaking * by virtue of the monopoly of note-issue conferred
- Pigou, Wealth and Welfare. p, 275. The three groups of considerations with which Professor Pigou continues as suggesting that public operation is, on the whole, inferior to public control do not apply to central banking. Cf. (1) The danger under public operation that the operating authority may be tempted to maintain the enterprise by the use of unfair commercial methods at the expense of vital enterprises capable of satisfying the same wants more cheaply. Central banks do not compete with the other banks at all. (2) Under public operation efficiency is likely to suffer through an undue restriction of the supply of the factor of production including uncertainty-bearing. Which applies more to industries than to banking. (3) Loss of efficiency through the establishment of units of management of an uneconomical size. Ibid, pp. 276-287.
- ³ Compare the following extracted from the Official Year Book of the Commonwealth of Australia. As the initial expenses of the bank were heavy, the early operations resulted in a small loss, but with the increasing prosperity of the institution the early deficit was gradually reduced, until in June 30, 1925, it was entirely extinguished. The following table shows the aggregate net profits from the initiation of the Bank to the end of each of the last five financial years:—

COMMONWEALTH BANK OF AUSTRALIA. Aggregate Profits, 1921 to 1925.

	AGGREGATE NET PROFIT TO STATE.		
Date.	General Bank.	Savings Bank.	Total.
	 £	£	£
une 30, 1921	 3 ,082,24 9	369,116	8,451,365
,, ,, 1922	 8,577,817	424,342	4,001,659
,, ,, 1923	 3,869,219	534,768	4,403,987
, , 1924	 3,964,620	690,053	4,654,673
,, , 1925	 4,098,392	890,838	4,989,280

on it by the State and the free deposit of the Government cash balances. There is no reason why the State should voluntarily renounce the profits in favour of private individuals. The question is not altogether a new one. It has been raised in Germany and Belgium, but met with hardly any success. In these countries the problem had been to remove the existing shareholders, which would have involved serious inequities. As was aptly stated in Germany, it would not have been the fleecing of the millionaire alone. The measure, if carried out, would have inflicted great hardship on the poor holders of the shares. It was practically not a question of principle, but one of this hardship on the existing interests that prevented the acceptance of the proposal. In our own country, the argument from the point of view of our public finance the necessity for finding increased sources of revenue to discharge the central functions—has not been altogether left out. Prof. K. T. Shah has suggested the elimination of other participants in the profits. From the point of view of theory, if a case has been made out for State ownership, one may ask: why invite other parties to share in the gains when the State can conveniently do without them?

5. Despite the warnings uttered by economists and by the continental banking experience, the Dominion of Australia created the Commonwealth Bank of Australia by statute in 1911. Its subsequent history has enabled it to safely survive the criticism levelled against it as a State Bank on its formation in 1913. The Bank is owned completely and guaranteed by the Government of Australia. It started business in 1912 with no capital and with assets of only £10,000, in the form of a loan from the Australian Government. Its balance sheet seven years later showed a total of over £70,000,000. It has about 90 branches in Australia. The bank has been a steadying influence to the Australian financial and banking position, and has added to the stability of the banks of the Commonwealth and has strengthened the Commonwealth's position. "It has done

more for the development of the Australian industries than statistics could demonstrate, and so far from weakening the position of the other banks, its prosperity has proved to be a source of strength.''

• G. Findlay Shirras, Indian Finance and Banking, p. 421. It is interesting, in this connection, to compare the work actually done by the Commonwealth Bank. In December, 1925, its capital amounted to £4,000,000, transferred from the reserve and redemption funds. The reserve fund amounted in that year to £822,318. The following figures bear testimony to the remarkable development of the Bank.

COMMONWEALTH BANK OF AUSTRALIA. Liabilities, June quarters, 1921 to 1925.

, send	es estad		Ralances due to		DEPOSITS.	SITS.	-	I o to E
300	30th June.	circulation.	other Banks.	Not bearing interest.	Bearing interest.	Savings Banks Deposit.	Total Deposits.	Liabilities.
ŧ ;		34°	¥.	# 050 21C	£ 10,600 164	# 3		વા
1921	: :	167,115	104,466	19,236,693	10,812,159	36,137,065	66,185,917	61,342,415
1923			29,849	17,718,999	14,658,671	38,102,850	70,480,520	70.714.945
1924			29,061	23,004,674	6,899,902	38,273,478	68,178,054	68,419,477
1925	:		3,940,032	23,381,481	7,828,650	39,798,481	71,008,612	75,21 4,570

COMMONWEALTH BANK OF AUSTRALIA.
Assets, June Quarters, 1921 to 1925.

Coin.	Ballion.	Government and Municipal Securities.	Landed and House Property.	Notes and Bills of Exchange.	Balances due fron other Banks.	Discounts, (verdrafts and all other Assets (no Contingent Assets).	Australian Notes.	Total Deposits.
1 33550	£ 10,590 10,151 9,397 6,683 2,251	£ 33,640,763 34,760,870 87,479,846 39,587,851 88,811,260	£ 624,186 599,960 762,730 917,413 943,624	£ 939,600 3,487,074 5,138,747 966,787 980,030	£ 3,350,321 3,488,840 2,772,000 4,872,321 3,330,693	£ 14,896,625 14,130,747 14,035,767 11,999,432 11,950,338	£ 4,922.840 4,730.453 8,750.438 9,064.343 14,000.587	£ 60,231,791 63,547,854 66,586,375 69,486,704 74,694,448

6. It is clear that there has already emerged a prima facie case in favour of the State ownership and operation in regard to central banking. But the case, however, cannot become more than a prima facie one until we have examined the claims of the private capitalist.

The theoretical grounds for admitting private capital and management may thus be summarised. The business world and the official world differ so widely in their methods and purposes, that State intervention has usually been blundering and has often proved mischievous. The State, already a bad manufacturer and a bad merchant, may prove a still worse financier.

The policy of non-interference in the actual working of a central bank derives considerable support from the tendency of business operations to proceed on certain general principles which partake of the character of laws based on the motive of self-interest. Self-interest usually governs the individual, at least, in his economic relations. Experience has shown that the instinct of self-interest more often leads him to the right than a policy dictated by powers outside the business world, and incapable of appreciating all the influences to which it is sensitive. The influences exerted on the money market under the operation of self-interest and under that of the motives of the State are not the same. This is caused by the large number of separate judgments which come to an average in the money market and on the stock exchanges. As Conant says—

"A single individual may err in regard to his interests; but the average judgment of the whole business community is more often accurate in regard to any given contingency in the immediate future affecting values than judgments based upon abstract reasoning from without. Hence the State operations in the money market might be more harmful, even if directed purely by devotion to the interests of the business community."

C. A. Conant, Principles of Money and Banking, Vol. II, pp. 256-7.

It is this aspect of the State's helplessness that provides a formidable weapon in the private capitalist's armoury. The force of this contention has been conceded, and has therefore been met by admitting the shareholder if only to keep the executive of the bank in touch with commercial opinion, and to introduce that element of commercial self-interest which acts as a reliable indicator to the right conduct of banking.

7. Even more important is another argument in favour of private capital. In these days of party governments, instances have not been wanting where the party in power have not hesitated to manipulate things to suit their purposes. The presence of private capital is probably a considerable bulwark against such kinds of political pressure, and offers an important safeguard of the bank's independence. As the objection is rather a serious one it is useful to examine it in some detail.

State authorities have often been liable to ignorance, to sectional pressure, and to personal corruption. A loud-voiced part of their constituents, it is true, if organised for votes, may easily outweigh the whole. But this objection to public operation applies to both as regards intervention through control of private organizations, and as regards intervention through direct public operation.

"On the one side, the companies, particularly when there is a continuing regulation, may employ corruption, not only in getting the franchise but also in the execution"

It is for this purpose that a continuing lobby is often maintained by private concerns. "It is from them that politicians get their campaign funds."

"This evil has a cumulative effect, for it checks the entry of right men into the government and makes the corrupting influence more free."

[.] Municipal and Private Operation of Public Utilities, Vol. I, p. 39.

Beamish, Municipal Monopolies.

Pigou, Wealth and Welfare.

On the other hand when the State itself undertakes the operation, corruption is changed only in form.

"Party leaders would have their proportion of increased patronage. Every public official is a potential opportunity for some form of self-interest arrayed against the common interest."

The criticism of corruption is thus really a double-edged weapon. But even with the dangers of corruption private management would be more effective in maintaining efficiency, and profitable working.

The force of this argument against State interference rests on certain assumptions as regards the standard of efficiency and the moral tone of the public authorities. But the public authority varies alike in efficiency and in the sense of public dutwith the general tendencies of the times. Thus during the last century, in England, we have it on the authority of Dr. Alfred Marshall, there has been

"A vast increase in the probity, the strength, the unselfishness, and the resources of government. And the people are now able to rule their rulers and to check class abuse of power and privilege in a way which was impossible before the days of general education and general surplus of energy over that required for a living."

An appreciation of this fact is important as it implies that there is now a greater likelihood for State intervention proving beneficial than there was in former times. Besides the general improvement in the working of the existing form of public authority, one has also to reckon with the invention of the improved forms of management: the creation of the committee machinery of management who are bodies of men appointed by governmental authority for the express purpose of operation or control of matters of an economic character, specially chosen for their fitness for that task, with appointments for long periods, the terms of appointment such as to free them, in the main, from electoral pressure.

- "The broad result is that modern developments in the structure and methods of governmental agencies have fitted these agencies for beneficial interference with industries, under conditions which would have not justified such intervention in earlier times."
- 8. The two other criticisms against State proprietorship need not detain us long. The fact that the State authorities have been primarily chosen for purposes other than banking, and the fluctuating character of the make-up of the legislature are handicaps serious enough. But these defects are remedied by adopting the Committee form of management.
- From this brief discussion of the merits of the State and private ownership and operation, emerge two points. Neither absolute State intervention nor a predominating influence of the private element is the most desirable type. Each possesses advantages of its own and the best form of organization is certainly that in which they may both be combined. The two main difficulties that have to be faced in this connec-(1) To maintain an effective control over the cention are: tral bank for safeguarding the national interests and to keep up a high degree of day-to-day independence for the authorities of the bank; and (2) to preserve unimpaired authority in the executive officers of the bank whose duty it would be to take a broad and not always a purely commercial view of policy, and at the same time to make use of the commercial instincts and commercial knowledge of the representatives of the shareholders. That this ideal is not impossible of achievement is to be learnt from the Continental central banking experience. It would be advantageous at this stage to review some of the experiences of Germany and Belgium.
- 10. The Reichsbank¹² is the central bank. It is privately owned but practically run by the Government, which shares in the profits. The advantage of an alliance between the State

Pigou, Wealth and Welfare, p. 250.

¹³ In what follows only the pre-war conditions and the system are referred to. The changes which have taken place during and after the War have brought about some modifications which are not relevant to our purpose.

and the shareholders was appreciated by the framers as is evident from the following quotation from the Official History of the Bank:

"Through the co-operation of the Reichsbank authorities, who are not interested in the financial profits of the Bank, with the representatives of the shareholders, who are practical businessmen, the bank management is safeguarded, since it takes into consideration the interest of the public; and at the same time the experience and the business knowledge of the shareholders, who are financially interested in the success of the bank, are utilized in the guidance of the Bank. This Bank organization which strikes a mean between a purely State Bank and a purely private one has proved to be the best system according to the experience of most European countries."

All the objections to the State intervention discussed in the preceding pages have been met by the Committee form of management. The autonomy of the Bank is thus preserved from invasions from outside. The authorities of the Bank are three in number. First of all there is the Bank-Kuratorium, consisting of the Imperial Chancellor as Chairman, and four members, one appointed by the Emperor and three by the Bundesrath, which is of the nature of a board of trustees meeting four times a year to receive a general account of the Bank's operations. There is next the Bank-Direktorium, with a President, a Vice-President and six members, all appointed for life by the Emperor on the nomination of the Bundesrath. This body is

"the managing and executive authority of the Reichsbank.....Its orders are to be sanctioned by a majority vote, and subjected to the instructions and directions of the Imperial Chancellor."

The Direktorium is

"Endowed with special independent powers, even though these can be checked by the higher officials; it acts in its own name as the central managing body of the Reichsbank, forms its resolutions on its own responsibility by majority vote, and has the rights of a 'supreme imperial board."

The shareholders are represented by the Central Committee (Zentralausschuss) of 15 members elected by the general meeting of the shareholders. It meets once a month and receives reports of the important items of the Bank's transactions, and the Direktorium's views as to general policy. Its powers are wholly advisory, but on a number of questions, its suggestions receive special consideration. The interests of the shareholders are further protected by the Central Committee of three of their number as deputies having the right to attend, with advisory powers, all the sittings of the Direktorium and to examine the books of the Bank. The ordinary officials of the bank are precluded from holding shares in the Bank.

It is interesting in this connection to recall what Professor Lexis wrote in 1907, when the question of converting the Reichsbank into a State one began to be seriously discussed. Speaking of the quasi-government or quasi-private form of organization, he pointed out that

"This system occurs in almost all the large states of Europe, in England, in Austria-Hungary and in Italy. Russia alone has a pure State bank with State-owned capital, but it cannot be said that it is worthy of imitation. It is not well for a great bank of issue to be actually merged in the State financial system. Even if it appears externally independent, it is likewise undesirable that it be subject as a pure State institution to political and to party influences. The officials of a pure State Bank have merely to adapt themselves to the regulations coming from above; but a bank of issue with private capital even when entirely managed by the State has a sort of independence as regards the Statean independence which protects it against interference with the vital conditions of its existence. For the former, indeed, the interference of legislation is needed; but the latter must never forget that a great private capital is in its charge. The Central Committee of the Reichsbank has undoubtedly only a very moderate authority but its influence nevertheless is far greater than that of the advisory board of a State railroad company, because it represents the owners of the bank capital."13

It is instructive to compare this with the conclusion of a Belgian Legislator, who, when the same question of the

Bank-Archiv, 1907, p. 309. National Monetary Commission, Vol. X, pp. 283-242.

management of the central bank under the State arose, declared:

"The answer cannot be doubtful when one considers the grave inconveniences in the management of the general credit which would be presented by the constant intrusion of political considerations. The discounts, the credits to be granted to this or to that person, to this or to that class, the collateral to be waived or required for such a group of citizens, the advances in mass to be made to this or to that element of the population...all these would become the clubs of the election day. It would be discussed in the campaign, and would form the object of pledges by candidates elected and even of imperative restrictions. Is it necessary to add that these questions would be determined under the single impulse of appetite and in absolute contempt of the economic laws and of the necessities of credit and of the circulation? One would thus find created and steadily growing an electoral scourge till now unknown.

"An example is furnished even this year (1900) in Germany by the debates on the renewal of the monopoly of the Bank of the Empire which gives visible form, even to the least clear-sighted, to this danger. The suppression of private capital has been demanded with ardour by the Agrarians and not by the Socialists, who, contrary to the policy of the Socialists of Belgium, have energetically demanded its continuance. The Agrarians wish to render the State master of the Bank, because they are to-day masters of the State. If the State becomes master of the Bank of the Empire, the Agrarians hope that nothing can prevent them from compelling the State to employ the funds of the Bank in execution of their programme. It is important to place the central mechanism of credit aloof from such assaults under which it would not fail to succumb dragging down with it public prosperity. It is a common error to believe that the State alone gives solidity to a bank of issue, that the credit of the State is the sole origin of the credit of the Bank and its notes, and that, in consequence, it cannot be dispensed with. History proves that Governments have been saved by the credit of the chartered bank and that the credit circulation has remained intact, thanks to its private origin, in the midst of the crash of the State. 'The Bank of France saved us, 'said M. Thiers, 'because it was not a bank of State.' During the War of 1870, says a leading unsigned article in the Journal des Debats of July 2, 1895, the securities of the State had fallen from 72 per cent. while the note of the Bank of France bearing the signature of a private establishment, had lost almost none of its value.

"Is it necessary to point out among other dangers, the danger in the liberty given to governments to draw upon the resources of the bank of issue—the irresistable temptation to inflate the credit circulation and to transform into paper money and ultimately into the assignat? It is in vain to pretend that this temptation is not irresistable. The facts show it to be such. In vain is it answered that even private banks, like those of Spain and Portugal, have not had the virtue to resist the solicitations of treasury in extremity. The real point is whether the credit of these nations would not have fallen even lower with banks of State."

To the same effect runs the criticism of that eminent banker, Dr. G. Vissering, President of the Netherlands Bank in the course of his observations on the South African banking and currency.¹⁵

- 11. The warning suggested in the preceding paragraphs has a special significance at the present stage of our national development. The wave of communal feeling that has swept over the whole of India has already succeeded in compelling the public authorities to grant special favours to the various sections in the country. In Northern India, the claims of the
- 14 Documents Parlementaires, 1909, p. 121, National Monetary Commission, Vol. X, The National Bank of Belgium, by C. A. Conant, p. 32.
- 15 "A well-managed bank of issue has to fulfil a sharply defined task and it is, therefore, of the utmost necessity that a bank of issue should be entirely free from an influence from any side whatsoever driving it in its management in one direction or other. Party politics should be entirely foreign to its management. A State bank, however, unavoidably comes under the influence of a ruling government based on the constitution of political parties. Whereas such political governments generally succeed one another at relatively short intervals, a State bank will thus unavoidably come under the influence now of one party and then again of another; it would seem unavoidable that this will influence perniciously the management of the bank of issue. It will no longer apply the strict rules of economy, but an inclination first in one direction and then in another will mark its business conduct. It can in this way be dragged into foreign political affairs even as Bismarck with his iron will dragged the Reichsbank into hostile action against Russia. This was possible for Bismarck as Imperial Chancellor, because in that capacity he was virtually the Chairman of the Reichsbank, and the Bank at that time had not been sufficiently safeguard. ed against interference with its business by the Government. The dangers attending the establishing of a State bank have during the course of time been so universally admitted that at all the International Economic Conferences held during the past six years, warnings have been sounded against a State bank and it was recommended that in countries where a State bank has been established, it should be converted into an independent private bank, neturally, however, under sufficient supervision by the State."

Muhammadan as against the Hindu, and in the South that of the non-Brahman as against the Brahman have already received official recognition in the form of allotted appointments. There has been in evidence, of late, of indications to an extent serious enough to compel a thoughtful student of Indian banking problems to pronounce this caveat:

"There is a tendency to distribute Government appointments without sufficient regard to the efficiency of service. This principle has been extended to schools and colleges where admissions are controlled on a communal basis. Also recruitments to professional services like those of a doctor, a surgeon, and so on, where in many cases human life depends upon the skill and experience of the medical men are not exempt from the application of this pernicious principle. If the management of the Central Bank were carried on these bases, there would be no wonder if credit began to be distributed on communal lines instead of according to the necessities and importance of economic activities. Such a course is sure to lead to currency confusion and defeat the very object of the bank of issue. Thus taking all things into consideration it would be most undesirable to entrust the functions of a bank of issue to the official class in this country." 16

Most of the Continental central banks have combined the private element along with State control or even operation. The National Bank of Belgium, according to a Japanese authority a peerless one in point of organization, was adopted as the model one, as being free from the traditions which have gathered round the banks of England and France, for Japan to copy. Even our superficial survey should have made it clear that but for the stray instance of the Commonwealth Bank of Australia there is no other respectable institution which is owned and operated by the State, and that the best available form of organization is evidently a quasi-private one. ¹⁷ After having arrived at this

¹⁶ B. T. Thakur, Organization of Indian Banking, pp. 108-109.

help the case for the State bank to any material extent. Cf. "As started in 1911, it was not so much an experiment in the way of centralization of banking as in the direction of nationalization of commercial banking. In fact, it was started, because the labour party expected great financial advantages from the entry of the State into the field of private

conclusion the next question is to find out whether there are any exceptional features about India which might decide in favour of a State-owned institution.

12. There is probably no public institution which can survive the withdrawal of public confidence in it. A successful measure presupposes public support in favour of it. It therefore follows that unless the Indian public views the proposed banking reform with sympathy, there is not much chance of its success. We shall examine the problem of the admissibility of private capital from this point of view. There is already invested in India a very large amount of foreign, especially British capital. Though the fact need create no greater apprehensions than it has in other countries, there are certain exceptional conditions in this country which compel us to take the general statement, with some qualifications. There is no use of making light of the fact that Indian national opinion is highly nervous about the increase of investments, in India, of foreign capital and desires to restrict further entry of it except under legitimate safeguards. Of the benefits of foreign capital, this is not the place to discuss. What is relevant to our purpose here, is a consideration of the dangers apprehended by an influential section of the people in India. This fear has been mainly responsible for the Indian attitude which insistently claims that government should operate the main public service industries and organizations The satisfaction felt by the Indian public over the majority conclusions of the Acworth Railway Committee and the statutory effect given to them has been only too recent to require reference. As this attitude is fairly general it is well to examine the foundations on which it rests a little more closely.

banking. I would refer those who want to study the origins of the Commonwealth Rank to an able article by Professor Copland of the University of Melbourne in the Economic Journal for 1924. He observes that "the bank was originally established for the purpose of carrying on the ordinary functions of banking as a State institution"; and hence for 14 years more (that is, up to about a couple of years ago) it was in no sense a Central Bank, and performed hardly any of the functions of a Central Bank."

Theoretically speaking, the peaceful penetration of foreign capital, unless preventive measures are promptly taken, ends in the political domination by alien capitalists. This statement is sufficiently warranted by the experience of other countries. Our own experience, too, unfortunately, tends to a certain extent, to confirm the truth of this danger. Instances have not been wanting to show that the veto of certain capitalists has often threatened to thwart our political aspirations. Foreign capital, it is well known, closely identified with its government, manages to secure peculiar advantages whether in the political or in the economic sphere.

The most fair-minded statement of the case has been made by Mr. B. Mukerji who sums up the general objections thus:

"If it were simply a case of our borrowing money abroad and paying interest for it, no one would object. But our economic dependence goes much further than that. We have to pay not only interest but the huge profits of business as well. This annual drain of profits is enormous. We do not object to foreign capital in itself. We object to the control of such capital by Europeans. If our industries could be developed by Indians with foreign capital we would gladly pay interest." 18

But the British capitalist has made no effort to ease the situation. Mr. Edgar Crammond speaking at the Royal Statistical Society, June 15, 1909 remarked:

"It was desirable that the money sent abroad should continue to be controlled by British companies, that is to say, it should be under the direct control of companies the head offices of which were situated in this country (England)."

Another factor in this deep distrust of European enterprise in India is that the European capitalist had spread his tentacles over some of the most important of the industries in India. Banking too has been dominated by him. In all his ventures,

¹⁰ B. Mookerji, The New Yellow Peril, Sir Ashutosh Mukerji Silver Jubiles Volume I.

it has to be confessed, he has never extended a generous arm to the Indian. As Mr. B. Mookerji says:

"The European generally will welcome the Indian as a clerk, but as an enterpreneur never. He will import his own countrymen from the west for all the productive stages. The Indian has not been trained for the work-no opportunity has been given to him and yet judgment has been passed in default.....In consequence of the above all the higher wages in our industries are monopolised by Europeans, the higher staff in all industries controlled by the Europeans is almost European. One of our advantages from foreign capital is the increased employment to labour-but it relates only to low-paid manual labour, for which no European substitute is available in this country due to climatic and other reasons. If any substitute could really be available, even that advantage The lower wages we get, but all the higher wages we lose. would be lost. The drain of higher wages is considerable and has a cumulative effect: a great economic loss to the country—a loss of her economic strength. If the profits and the higher wages came to Indians it would have prevented the commercial anaemia of India, it would have given increased employment to Indians, directly or indirectly by increasing the demand for their services or commodities, it would have multiplied wages and profits."19

This digression from the subject makes it clear that the apprehension is well founded that under private institutions with a dominating element of foreign capital and control, the Indian has less chances of having the higher posts Indianised than it might be when they are owned by the State. It is from this point of view that we have to appreciate the insistence on the State ownership of the central bank. That might ensure that the sons of the soil are not denied admission to the higher posts. The policy would be more likely to be directed to promote our economic welfare. As Mr. L. R. Wyndham Forrest suggested, the central bank must not come under the control of the London financiers. All these vexed questions might be avoided, if the State assumed the ownership and operation of the proposed bank.

But this argument against private capital may be easily met. As Professor Coyajee stated in his recent lecture at the Calcutta University:

"In the first place, as the Report of the Currency Commission of 1926 has fixed a maximum rate for the dividends of the Reserve Bank, which is by no means large, there is no reason to expect that foreign capital will be particularly attracted to the securities of the Bank.

"In any case, any apprehensions on this score can be set at rest by giving a preference at the allocation of the shares of the Bank to the small investor who applies for a limited number of shares. An assignment of shares based directly on racial lines is to be deprecated; admittedly it is impossible to ensure that shares, though assigned to Indians, at first, will continue to be in Indian hands after a time.

"Further, it is quite possible to secure that the majority of Directors of the Bank should be Indians without maintaining a racial distinction as regards shareholders. The object can be secured easily even though the Bank is a Shareholders' Bank; it would be preposterous to erect a State Bank only in order to secure an Indian directorate, for that object can be attained with a Shareholders' Bank."

L. A. NATESAN

¹ The article was received by us in August, 1927-Ed., C. R.

KINDRED SAYINGS ON BUDDHISM 1

II

THE MAN

In the section of these remarks:—'Will and the Way' (Calcutta Review, June, 1927)—I spoke of the message of Gotama Sakyamuni as an appeal to the will in man which is ever seeking something figured as a better, worded under the symbol of choosing the right 'Way' in wayfaring. I showed that the want of a fit word for will hindered the driving force in this message which we could put into it. And I claimed that this, coupled with the historical fact of the message being taught by a world of monks, had succeeded in largely distorting and withering its real meaning as a message for the whole of life (not of one earth-span only) to 'Everyman.'

We name the 'man' in a worthy way when we call him Everyman. It is an old, a mediaeval word in English literature. It has undergone revival and I am glad of it. I want to speak of Everyman.

In any religious teaching, in any philosophic teaching worthy of the name we are up against the man, we are never far from the man. To speak of the man as body, and as mind under this or that aspect only, is to use object-words, not subject-words, is only to name ways, processes used by the man. Not one of them names the very man whose are the ways, the processes. Is there not more wisdom in the Indian teacher's injunction I quoted:—'Seek not what mind is; seek the thinker'...and so on? But in the monastic teaching of Buddhism this is never the case. Deliberately the choice has been to omit the man, to consider the process; to consider the very

The first series appeared in the June (1927) issue of the Review.

impermanent instead of the relatively permanent; to consider the mind, not the mind-using man. The excuse they had is that they were herein protestants, revolting from the belief that the man was immutable in the midst of changing physical and mental conditions. But, as I have said, they threw away the baby with the bath-water. In Abhidhamma, over definitions of terms, they were also not without excuse in omitting the man. But this manless tendency runs throughout the religious exhortations of the Suttanta. In a religion which had come to culminate, not in the goal of all the worlds at the end of the WAY, but in the perfected man, the worthy, the arahan, we find the man analyzed in objective terms of mind, and the perfect man described in negatives.

This is not the fault of its medium of speech, the Pali. Pali lends itself well to expression in terms of the agent. It does not often so lend itself, and in consequence tyros and translators not seldom fail when it does; but the Pitaka editors, Majjhima-compilers especially, used such terms not a little. We find 'knower,' 'goer,' 'liver,' 'thinker,' 'speaker,' 'seer,' 'helper,' 'fosterer,' 2 and many more. But never have I yet found among the foregoing any makeshifts for 'willer,' save perhaps viriyavant (once). And I judge that, in the still little-known Commentaries, the use of agent-terms has lessened. Before their time—I mean, before they appeared in their present form—we see in the Kathāvatthu what a fight the orthodox upholders of the unreality of 'the man' had undergone to establish their dogma. The first and by far the longest dialectical chapter is on the 'man' (puggala = puruşa). And the orthodox has to meet the charge, that, after all, the truth-speaking Bhagava made use of the word in his teaching. The explaining away of his usage does not reach a comfortable settlement till, in the Commentary hereon—and before that, in the Milindapañho, we come across

¹ E.g., 'he has put away chanda.'

² Afficiar, gantur, caritar, mantar, vådetar, cakkhumant, anuggahako, uppadetar,

the distinction:—'highest meaning-truth' and 'conventional truth' (paramatthasacca, sammutisacca).¹ It was no sudden tumble, but at the bottom of a long chute that we find Buddhaghosa in pitiful error saying: 'There is no doer; there is only doing.'

It was no error to see in the Bhagavā, in Gotama of the Sakyas, one who spoke in terms of 'conventional truth'-in ordinary language, that is-to men about man. The error would lie in assuming that he ever spoke to men in any other way. He is often spoken of as having created, or revived a 'philosophy'. This is only true in its primary meaning: that he was a wisdom-lover. But that he taught the many, the multitude, the plain man in language he could understand, having the while in mind a 'higher,' a truer meaning in his words; that while he spoke to 'thee' and to 'you,' he saw no inmost reality, no very man-in-man, but only a 'complex' of body and mind:—this is a libel and a very black one. It is to see in him no lover of wisdom, but a blind leader—though not of the blind, for Everyman, the plain man, would not follow him here. Everyman is a limited fellow. But like the child he is, he has retained much of the child's directness and simplicity. He is not congested with word-complexes. He holds that 'I am I,' have been 'I,' shall be 'I.' He will not admit, that 'I' am merely a label, a tie-word, a name for a bundle, a complex, even if it be conceded that the processes making up the complex are real.2 He holds that 'I' am the bed-rock Real, the most real thing he is aware of.

But he will also admit that 'I' changes, and not in mind or body only. 'I' am not the 'man I once was'; I was that man, yet 'I' am in a way a different person; and like Ophelia, I know not what I may be; none the less this he who was, who is, who will or may be, is this 'I'; a changing 'I,' a becoming 'I,' a growing 'I.'

¹ Points of Controversy (Kathavatthu), p. 68; Milindapanho, p. 160.

² So mediseval, Abhidhamma; cf. Abhidhammatthasangaha, VIII, 14,

Here his quarrel will not be with Buddhist philosophy. Here it is the pre-Buddhist and the post-Buddhist teaching of Indian religion and philosophy that he will not follow. Here he was told, that the very man, being one in nature with Brahman-Atman, is to be described as That alone can be described. And that is by many negatives, which exclude anything of the nature of change, such as augmenting or diminishing, becoming, growth, instability, otherwiseness. I believe I am right in saying, that little emphasis is laid on just this group of attributes in pre-Buddhistic thought. Perhaps it is not till the Bhagavadgita took its present form, that we find this emphasis. And there is no lack of it in the Vedanta Sūtras. That work had to meet and fight down the counter-emphasis laid on change, transience, impermanence in the man by Buddhism. It is not surprising therefore to find there a new insistence on the absence of change and of becoming in a thing so real and eternal as the man. Buddhism had had its opportunity, and had failed. Over its submerged head the teaching of the very man closed to prevail once more, and with a surge not permeated with a new and vital truth, such as might have been the case, but with an error of developed strength.

It is to this way in religion, in philosophy, that the man of the people, the man with the heart of a child in such matters, will say: 'I know, know to the very root of me, know as unanswerable, that in many things I am now a different man; I judge not as I used to; I see, think, otherwise; I plan otherwise.' He does not say: there is here a different judging, seeing, planning; he says all the while 'I'; if he does not say so in that way, he inflects his verb in the 'first person'—it's all the same. He is not meaning to say just 'there has arisen here a difference,' or 'my body, my brain, my heart, is now different'; or 'my mind, my reason, my consciousness is now different'; or 'my character is changed.' He means what he says; he means 'I' have changed, and therewith all that is 'mine' is no more as once it was.

Here then we have the plain man, the man of the many, holding to one way of thinking, where philosophers and churchmen may judge they see higher truth in one of two other ways, which we might call the limits at opposite sides of his way. The churchman may say: 'But we can give him milk for babes.' The philosopher may say: 'I live in communion with the chosen few. It is they only I wish to lead. The many will never understand.' In a way those are wise and these speak truly. Yet in a way the man of the people, in his acceptance of the very 'I' of him as real and as changing, as becoming, is wiser and closer to truth than either of those parties when they deny either of the things he accepts. Slow is his advance out of ignorance. He has buttressed each stage of his becoming—that becoming which is the very nature of him-with very much that has to be loosened and pulled down before he can take the next step. But truth for him means at bottom, not an abstraction, not a word, but a true thing. And the word is of value only so far as it names a thing which he holds is true. A word-system which tells him either that the thing he names 'I' is not real, or that it is unchanging, is a teaching for which he has no use.

Yet he comes in his slow advance to have use for, to hold in worth the New. When 'at sundry times and in divers manners' there has come to him—as come there yet will—a fresh mandate in the becoming, the further becoming of his manhood, he has accepted it; he has accepted it eagerly, for already he had been feeling after it. He has fought for it, died for it. He has seen that it belonged to his greater welfare as very man. Such a mandate will never have done either of two things: it will not have told him that as man, as 'I,' he is not real; it will not have told him that as man, as of a nature not of earth only, he is unchanging. Contrariwise, the new mandate will have told him some truth of himself as man, as a child of the worlds, as a son at once of man and of the Highest, able as

man to become, to make to grow that within himself which is of the nature of the Highest. It will have confirmed in him the conviction, that he is, as man, very real, that he is, as man, changing-into, becoming, werdend.

Now it is to this man of the people, to Everyman (or else to the man of the few whose heart beats with him), that the great mandates in religion have been revealed, have been sent. He is the 'many.' He is the 'world.' It is he who in the long run counts. His 'well,' his welfare it is, yes, and her well it is, which in very deed is the well also of the philosopher, of the religious teacher, of the monk. It is vain to speak of these three as growing towards perfection, as being 'saved,' apart from him, from her. With the many, in the long run, these three wax in their progress, and wane. And-again in the long run—the welfare of both these and of the many is intimately dependent upon their deepest convictions being true. Hence arises the question: if the wise few deny that this or that deepest conviction of the many is true, will the wise with their denial and the many with their belief both attain the ultimate Well which is also the ultimate True? Must the many come in time to share in the denial of the few? Or is it possible that the few must come to see in the people's conviction something more true than their denial?

'Surely,' it may be said, 'the former alternative is right? The many must of course come little by little to attain to the standpoint of the few wise. Already have they largely done so in the case of the sun's rising and setting. They are now ready to deny that the sun does either.'

Analogies seldom fit the case, nor does this one. There is no question here of the denial of the existence of a thing. The denial that the sun's appearing to do either is no more than the correction of an impression, and a true impression at that, of the sense of sight. Neither the existence of a sun, nor for that matter its own movement is denied. It is only a question of saying that the earth's rolling down towards, or rising away

from the sun were a relatively more correct way of wording. And so unimportant, as error of wording, has the old way seemed, that the wise few persist in its use. But in the dogmas: 'the very man, the self, does not exist, as not just body and mind,' and 'the very man, the self, is unchangeable,' we have gone behind sense-impressions, behind the 'how' of phenomena. We are bidden to hold, on the one hand, that a deepest conviction of something real is of something unreal, and on the other, that our deepest conviction about the nature of that something real is a wrong one.

Let us not try to answer our question by the uncertain guide of analogy. Let us look to well-attested historical facts. Let us look (1) to the movements or messages we often call gospels; (2) to the response made by the men of the people to gospels, to those gospels the influence of which has persisted; (3) to the man of the mandate in them, the teacher, saviour, helper.

(1) Wherever and whenever 'gospels' were uttered and spread, we note in them certain great common features. is, in the first place, they are each and all addressed to 'the man,' not to anything external about him, or what is of the nature of an adjunct, or a factor, or an instrument, but-by implication, if not explicitly—to what we might call the 'manin-man,' the ātman or very self of him. Next, they are all of them concerned with man's life, and its great significance for the man himself, now and hereafter. Lastly, they all speak, in terms of high worth and faith and hope, of man's nature, namely of that which he has it in him to become, which any and every man, in virtue of his nature, however he lives now, has it in him to become. And what is that? It is variously worded, both positively and negatively. We may sum up both ways by the words: to become Deity (or solely Deity), or to become perfect, or to put an end to ill, or become perfectly happy.

One word there is which may claim to include all these: the word well. Man, imperfect, minor, infant as, in his

earth-stages, he always is more or less, has it in his nature to become utterly well. Poor hackneyed little monosyllable that it is, few may be ready to see the depth, the breadth, the height. in the range, the scope of it. Yet its negative equivalent: the end of ill (dukkhass'antam) has stirred the earnest Buddhist imagination for ages; and again, it is a bigger ultimate conception than that of happiness, pleasure, bliss. To be well, utterly well, is not only a state to be contemplated or enjoyed as a consequence of actions. It is a state of being after much becoming—it may even be a state of hyper-becoming. ness or its equivalents may be accompaniments, but they are that also in much that is not well. They are like the perfume, the colour of the flower; the 'well' belongs to the very growth of the plant. This is because the 'well,' like the Platonic 'good,' is a term of the 'man-in-man,' that is of 'spirit,' while happiness and the like are terms of mind and body, the man's instruments. Mind, body, grow from infancy to adulthood no less than, it may be, does spirit. Soon body enters on decay, and to some extent mind also; much, if it be the body's servant, little, if it serve spirit first and body next and less. But growth of spirit, of the 'man-in-man,' is not so rounded off, nor need there be decay. Its beginning we do not know, nor its end. But the better, not the more or less of happiness, is the index of its growth. The Well belongs less to the little present world of things enjoyed; more to the world of one who would become fit to enjoy. The world of the Well is the world of Dharma in the fundamental meaning of that word.

This is the world of the may be, should be, ought to be, not the world of things as they are. *Dharma* (Pali: *Dhammu*) is a word we have not, a word I wish we had, in some equivalent form. 'Duty,' 'law,' 'norm,' 'ideal,' 'truth':—many are the makeshifts, not to mention 'doctrine,' 'teaching' for the worded embodiments of *Dharma*. Complicated too is the term by its distinctive plural use, meaning in the Pali Satras

¹ I plesd for the use of this as a noun, as we say 'the good.'

just 'things' (in the later Abhidhamma: states, phenomena), and by its usage as affix meaning 'belonging to,' 'of the nature of.' Let readers of Buddhism in its earliest records accustom themselves to use 'dharma' as they have accustomed themselves to use 'karma,' keeping in mind this essential meaning: 'better than what is.' They may see how, thus rendered, it puts spiritual, religious power into the term; for instance, in the question: What, sir, is your dhamma wherein you train your disciples, which they, so trained as to win comfort, acknowledge to be their utmost support and the fundamental principle of righteousness?' (Dīgha-Nīkāya, III, 40: P. T. S. ed.) But more of this later.

By these common features we can see, that never, in a gospel, is the new message a denial of the truth, the reality, the worth of the man, the person, the 'you,' the 'thou.' Always the appeal is to that which is, in the man-'complex,' not just a factor among factors, but he, she who responds, who judges, who wills, who chooses. Never is there a putting the factors into which the man may come to be analyzed in place of the very man to whom they belong. And always is the appeal made to man as being in a very imperfect state, but as having in him both power and will to change, to become, to grow. Always too is there reference to that becoming, that growth being continued, being ultimately consummated in a state which is not just man's present life on earth. We see I repeat, that the greater, widely accepted gospels have not started with any denial of, or even restriction in the reality of the very man, and that they have started with an implied belief in man's nature being to become or grow, that is, more widely stated, to change.

(2) It is not easy for us, to whose world no fresh gospel-mandate is just come, and who have very fragmentary records of the days when such a mandate was just come, to be wise about the response which met the bringer of such. But we seem to see this: the gospel made a singular, a strong appeal,

the appeal of a supply to a demand; the response to something waited for. They who were waiting were not in every case the very worthy, the very wise. But they were in a way feeling the need of some one to give expression and guidance of a fresh kind in the 'man' and the life of him. In the man who thus expresses and guides they find one who appeals to the very man in them, not to anything external about each, not to any worthiness in each, but to that in each who is in very need of him. Neither is it anything necessarily external about the bearer of the message, or anything reputed as of surpassing worth in him to whom or to which the great response is made. Something there will have been in the message to the man about his changing for the better that flashes like an electric throb from man to man. It is a message concerning the very nature of man in his long wayfaring toward That who is also of his very nature, his nature in very perfection as he is only perfection's germ. It seems to me that in no other way can we account for the extraordinary growing and expanding power shown at the inception of each great gospel-movement. It is true that the written testimonies are the work of votaries. independently of the way in which these made record, the patent fact remains, that there was both astonishing growth. and expansion. Many movements among men have begun, only to peter out; some of them of a religious nature. But only to a few such movements (and only along certain lines within these) can exuberant growth and lasting footing be conceded. some felt need, felt more especially there These met response to that need was first brought; but where the beginning to be felt elsewhere too. Something in the message, something in a new light, appealed to the growing, the becoming 'man-in-man.'

(3) Something too in the messenger will have made special appeal; something that made him in a way one with his message, so that it came to be said of him; his message is he and he is his *message. I am not going here into the deep

matter of his being specially mandated. Let it be enough in the present argument to affirm, that he owed the heed some paid him, the worth in which some held him-the number of such growing quickly—to this: he as very man, and not otherwise, spoke to the very man in each man, bringing a message about that very man, about his well, his welfare, now and to come, about his growth toward it, about each man's own work as willer and chooser in that growth, that changing for thebetter. Doubtless he will have been personally attractive; even Sokrates was clearly that, and who can truly say, Sokrates taught no gospel, made lasting in scripture? But attractiveness of that kind has not sufficed alone to work a great change in the bases of religion. It was the way of the man as messenger, the word he brought, and that in the hearer to which he spoke: -these gave him in men's eyes a worth paid to no other kind of man.

Whatever the followers of such a man came to think of him, whatever they came long after to write about him, whatever they came to say that he said, never will it have been possible that such a messenger denied in man, in the very man, the reality of him, or denied his nature to be changing and therefore becoming. Never will such a helper 'unworth' the man, so as to make him only what he has, only what he uses, only the way of his using. Never will such a helper so misconceive the man as to see in his very nature or essence the become, the finished, the perfected, and not him who is becoming, who cannot but become.

Let it not be supposed that I see, in the helper of men bringing such a message on man to man, one who is more than man. I do not hold he was that. I plead that, in order to be and to become what he was, we must heed and worth him for the very man he will have been, and not credit him with sayings that cannot have come from him. And I have said, that of such sayings is it to have said: 'there is no very man (self or soul),' and: 'very man is unchanging.'

In these three points I believe the reader will find suggested an answer to the question raised above. Taken together the three amount to this: Man does not will to follow a teaching which makes no appeal to his inmost self. (Man here includes woman.) When man does follow a new word, he will have been seeking it, and the worder of it is a man to whom 'the man' in men pays instant heed. In the whole relation, in its three factors: man the taught, the teaching on man, the man teaching, it is the very man that is in question, whether he be of the few or of the many.

It is of great importance to have these three factors in a true perspective in our historical vision, more especially when we are sifting old historical documents. For instance, in the last factor, the messenger: here the ancient teaching tradition has been to see in him more than man, and then to credit him with any- and every-thing he is recorded to have said. The very human man as speaking to the 'man-in-man' is lost to view. Then in the linking factor, the message to the 'man-in-man': this is also twisted and covered over by tendencies in teaching, which are secondary, or later, or both. Lastly the first term of the relation, man the taught, is not always well worthed. He is treated of as just multitude, mass, men. There is in an ancient book a fine simile about such men. They are like lotuses growing in a pool, those in the mass of blossom which are reaching the surface, are rising above it...so some have eyes less dust-dimmed, some are but little dust-dimmed. .. 'there are who will understand.' These are of the many, of the people; these are they who have 'set going the wheel' of a new movement. With this it is usual to credit the messenger alone. But a great religion is no one-man matter. Between helper and multitude there is a mighty bond, welded by that which the one calls to in the other. And that is the manhood in man, the man-in-man.

There is the other simile drawn from the breaking-in of horse and elephant, of purisadamma:—the man who may be

trained,' in other words, made to become what or how he was not before. These are said to be they who respond to the teaching of the helper. In both pictures there is a sense of true perspective of the many. It is not of a herd, it is not of a mass of 'complexes' only, almost mechanically conceived. It is the many as this man, that woman, this child. It is to this one and that one, to 'you' and 'you,' that the helper will have gone, however much he may have been afterwards credited with delivering of 'sermons.'

It is, in the many, the 'I' here, the 'I' there who responds to the helper's message. He himself: sayam, takes it to heart. We must not lose sight of this in our so-called 'psychology of the crowd.' Nor is it a fit argument for the 'an-atta' dogma to say, as do new Western Buddhists, that this teaching is a condemnation of egoism, a (negative) support of altruism. not only is egoism not involved in the belief that the 'man' is very real, but I have yet to meet with any early Buddhist teaching, in its literature about anatta, in which the ethical notion of egoism is condemned, or the ethical notion of altruism is praised. I do not find old-world terms for either. nothing new in a man's putting himself first, or putting himself last. But I do not find that the altruist is ever said to act from his belief in anatta, or the egoist because he does not believe in it. Anatta was not ethical but just a corollary from things as transient' and 'things as ill.' And of these, the former was an anti-Brahman attitude, the latter was a monastic attitude.

It is a profoundly important point in the history of religious ideas that we of the West have here to consider, and to learn how to see in right, in true perspective. On the one hand we have the Indian faith predominant then and now. This believed in the reality of the very man, the purusa, as one in nature with the highest spirit:—'Atman=Brahman.' It believed also, that, in virtue of this very kinship, the man himself could not become (i.e., change) save only in body and mind. On the other hand we have the Buddhist faith

predominant once in India, now elsewhere. This first warned its world against identifying the 'man' with body or mind, because these were weak, transient, changeable. Relatively, it said, body is more permanent than the swift-changing mind. It did not add, the very man or self changes usually even more slowly. But it did not deny him or his changing—nay, the transformation by 'training' of the very man (attan) was its very stressed teaching. Later we see it denying that man was anything save the bundle of mental and bodily happenings, or that he became anything save the resultant of these happenings.

And on that important point of divergence I finish these remarks with three last words. (1) So far as we can trace it, the earliest teaching we call Buddhist did not deny the very man, or self.

To see this, we must shed our own standpoint of the eighteenth century in force still with us; we must imagine the power of the word atman, attan for an educated Indian of the seventh century B.C., when invited by a religious teacher that he would do well to 'seek the attan.' Almost it was tantamount to bidding him 'seek God,' or: 'seek the Holy Spirit within yourselves.' This is said to have been one of the earliest addresses of the founder of Buddhism.1 It is historically of deep significance. And it is supported by many passages in the four chief books (Nikāyas) and the Dhammapada, where the subject is man's communing with, and knowing himself-ways too of wording which are not maintained in later teaching. Several of these are quoted in my Buddhist Psychology; 2 to cite them here I have no space. I hasten to add, that in mentioning them as psychologically interesting. I did not grasp (thirteen years ago) their deeper significance.

What was denied from the very first was that man, the spirit, the attan, could rightly be considered as either body or mind. Were he either or both, then as being things so weakand

Vinaya, I, 23 (Mahāvagga, 1, 14).
 London: 1914, 1924, p. 28f.

transient as either of these, he could not will-to-become (as will he did); he could not be chooser of his destiny. This is not to deny that the 'man-in-man' is. It is to say: 'Form not so wrong a nation of what you really are.' But to have said, at that day in India: 'You are neither the one nor the other, therefore you are not at all, you, that is, are just only a bundle of both,' would have made the new gospel an absurdity, an insult on the intelligence of the hearer.

- (2) Yet even now the Southern Buddhist in Asia and the very latest writers on Buddhism in the West fail to discern the change which spread like a very canker over Buddhism in this matter. I have tried to give a little outline of the growth in the anatta dogma in the chapter: 'The anti-soul attitude,' in the supplement to the work cited above.' It could be developed. It should be developed by competent critics—or proved to be untenable. But so far is this from being the case, that I have had under review books on Buddhism of this very year in which, unchanged, unimproved, the forthright statement stands, that 'the Buddha' denied, negated the soul! Is there none in India who will see, who will help?
- (3) Is there none who will vindicate this helper of men, noble and wise? Is there none who will understand, that he who brings the new message, which we call a religion, to men is one who, whatever he did teach, did not teach certain things because he simply could not, being who he was, so teach. If we have, what I have put forward above as a right perspective in contemplating the relation: Mandater of gospel; the mandate or gospel; the mandated (viewed as the two terms of the relation and the bond between them), then shall we be sure, that the mandater in appealing to the very 'man-in-man,' could not tell the mandated, that this 'he' was not real, was non-existent. We shall be sure that he would, on the contrary, atrengthen man's belief in his reality by enlarging man's

knowledge about himself. No less sure shall we be, that the mandater could not, in so enlarging man's knowledge, and thereby bringing about a new becoming, a fresh change in man, tell the mandated that there was, in man, that which was unchangeable.

Ever have the great mandaters spoken as brother-men to their fellowmen. Never therefore could they worsen 'man' in their mandate. When we read of Manu as being 'taught by Brahman 'to enlighten men, and then read, in his so-called 'Laws,' penalties of utter barbarity to be wrought upon his humbler brethren, the Sūdras, we know that we are reading, not the worded will of Manu, assuming the belief in his high mandate to be right, but an unworthy addition by others. This is what I plead we must do in judging the Buddhist writings. This is not to create a fanciful figure in the mandater, and deduce his mandate from it. It is not to dictate what he will have said. It is to have faith in the nature and the Source of his mandate. It is to believe that his mandate will speak to the very man-in-man, and will tell him the things that make for the Better, that lead to the Utterly Well. The way and the word of the man so mandated, bringing such a dharma, will have been what in Buddhism was fitly called dhammata; the rule, the order, the law, the nature of that which works for the Better, for the Well. And of some ways, some words, we say, these are very surely not dhammatā.2

Not less surely do we say, this is dhammatā:—the nature of the 'man,' wielder of body and mind, he who wills the Better, who uses self-direction in so willing, who in working as he is willing becomes other than what he was:—this nature will not, in mandate or by mandater, be worsened and made unreal. Nor will they of the 'many,' to whom mandate and

¹ Laws of Manu, I, 57, 58; XII, 123, etc., VIII, 270ff.

^{*} This was worthily illustrated by Buddhaghosa as a fifth world-order (nigama), but it is unworthily explained to-day in S. Asia. Of. my Buddhism (1912), 120, 242.

mandater first make appeal, see and be drawn by any message worsening and negating that in them which is seeking the Better. As merely body and mind men would be seeking a very mixed welfare. For the most part they have ever done so. For the most part they are doing so still. It is when they seek the Better for the man-in-man who is more than body and mind, that the worthier Better, the very WELL becomes their quest.

C. A. F. RHYS DAVIDS

THE PLACE OF TRADITION IN RELIGIOUS LIFE

Tradition (from L. trans-over, dare-to give) derivatively means the handing down of beliefs and practices to posterity or the beliefs and practices, ideas and customs that are handed down from generation to generation. In connection with the religious life, tradition stands for the body of religious ideas and beliefs, customs and practices that come down from past generations to the present and are enjoyed by all the individuals as the common property of the race. In the words of Prof. Max Müller, used in a different context, 'it is like a common fund which, like language, belonged to no one in particular but was like the air breathed by every living and thinking man.' As some sociologists would say, it is that kind of imitation which tends to preserve an old custom as distinguished from that which makes for new ones. Sometimes such traditional religious faith is codified and embodied in treatises called the holy Scriptures, and sometimes it exists in an unwritten form in the system of beliefs and practices current in the religious life of a people and transmitted from one generation to another. In the history of many great religions it is not difficult to discern a stage of oral tradition, preserved by a long line of teachers and disciples, followed by canonical works in which the contents of religious faith are reduced to writing to eliminate the chances of fluctuation and destruction.

But whatever may be the form in which it exists, religious tradition has, as a matter of fact, an important place in the religious life of individuals. Man is born into the world which has already gained some fixed order in respect of his social and religious life. A man's career in the world has to reckon with the established order of the society and the organised religious faith of his fellow beings in the society into which he is born. These constitute the groundwork of his future mental development, the hard sheath or cover within which his religious life

has to grow and by which it is protected from the intrusion of

foreign influences.

The influence of tradition on our religious life manifests itself in many forms. It is through tradition that we are initiated into the faith in a living God and the vast majority of men rests content with traditional faith and institutions. influence of tradition makes itself felt first in the religion of the child who has nothing of the doubt and distrust characteristic of age and accepts everything he is told. With an empty and a highly impressionable mind, he finds himself in the midst of a world of older persons who think, believe and act in much the same way in religious matters. "It seems as if the older world has entered into a conspiracy against the tender infant mind to force it into the old approved social grooves." The child imitates the ways in which his parents and other relatives are found to worship and pray to God, he imbibes their religious ideas and beliefs, and his subsequent education at home or at the school tends to make him like every one else of his society. "The torch of custom is forced into his hand and he is compelled to carry it and pass it on but slightly changed to the next generation. Thus the religious feelings, ideas, and ways of acting which the social group has been centuries in evolving are assimilated by the individual in a few years." These are ingrained by one generation into the mental background of the next. They constitute, as it were, the spiritual legacy of the one to which the other becomes the intellectual heir.

Then the traditional aspect of religion characterises most unthinking adults, for whom religion is a matter of forms and institutions, customs and practices that are found to govern and dominate the religious life of the society to which they belong. These are looked upon by the general mass as things to be revered, as matters of inviolable sanctity. They would learn the traditional beliefs and practices of religion with all reverence and tenaciously follow them in their lives, even though they fail to give any explanation of their sacredness except that they

were similarly cherished by their venerable ancestors. These men illustrate by their conduct how of religious tradition, the volitional element of actions has a stronger hold on and a greater fixity in the people's life than the intellectual element of beliefs. The ideas and beliefs may change to some extent with the growth of knowledge and the influx of new experiences. But that is not allowed to interfere with the religious practices and customs prevailing in the society from time immemorial.

Even among thinking men we find a certain class of persons who are genuinely religious but whose religious experiences are circumscribed and moulded by the religious traditions of the They find in the traditional faith something so good, so beautiful and so authoritative that they either dismiss the adverse claims of the intellect or make both their intellect and their individual experiences subservient to the dominant demands of the tradition which they love. It gives a bent to our intellect and reason, and makes them serve the purposes of the traditional faith. When thinking or reasoning about religion we are disposed to justify and even glorify our tradition at the cost of others, and believe that the ideal sort of religious experience is the one that has the authority and the sanctity of tradition. We seem to think that we ought to have the same feelings, emotions and experiences that our ancestors had in their lives before us.

It is in view of these facts that Mr. Tyrrel has said: "Religion is institutional just because it is social; because it is only through the educational influence of society that the communised religious experience and reflection of the past generations are brought to bear upon us so as to waken, guide and stimulate our religious faculty, which else might remain dormant, or at best only reach a rudimentary development." In his Philosophy of Religion, Prof. Höffding brings out the effect of tradition on individual experience in a remarkable way. "The form and content of religious faith can never be explained from the religious experience of any individual." The evolution of

religion occupied long ages and many generations, and "every individual stands at a certain point in this line of evolution, a point which is determined alike by that which goes before and that which follows after." Even when a man has the deepest and most independent religious experiences "the manner in which he expresses and interprets these experiences will itself be conditioned both by the circle of ideas with which he is familiar and also to a greater or less degree, by tradition, although he himself need not necessarily be aware of this." Hence it is neither absurd not strange if among ancient Hindu thinkers there were some who would claim for tradition (aithya) the status of a source of valid knowledge (pramana) or of a way of knowing things, religious or otherwise.

So far we have seen how great the influence of tradition is on the religious life of the individual. Let us now consider the value of the traditional aspect of religion and the place that it should be given in our religious life as a whole. It is indeed of great value as the starting-point or the beginning of our religious life. For the initiation of faith in God, the awakening and stimulation of the religious feelings we are to depend on some kind of tradition. We all start in our religious life as formalists, and all historical religions have and will ever have a good deal of the traditional element in them. collective experience of the race has passed through many generations and tradition has preserved for us the lasting fruits of mature thinking and laborious search after truth in the whole past course of our national life natural heirs to the spiritual legacy of the past and we are to make the best out of it and utilise it to our best advantage. * We cannot break away completely from the past and begin from the very beginning in every walk of life, which is a hopeless task after all. But while appreciating the value of tradition we should not forget its defects and dangers. Mere faith in tradition makes a man blind to everything else. It develops into a narrowness and an exclusiveness that finds no good

anywhere in the world except its own beloved tradition. even makes him impervious to thought and reason, and he becomes so bound to the past that further development through reason and personal experience is made almost impossible. The religion of traditionalism, if left to itself without the right of reason and the life of experience, becomes dead formalism and meaningless custom. 'It dwarfs, dries up and stultifies the spiritual life of those who surrender themselves completely to it.' In its extreme form it ceases to be religion, for through the engrossing interest in mere forms, rites and words, the meaning and significance of these are hidden from our view and they fail to inspire the religious feelings and experiences with which they were originally connected. there arises a conflict of interests between different forms of such extreme traditionalism. And the worst of all is that narrow communalism, the bastard child of pseudo-faith and interested fanaticism, leads to the commission of the most irreligious and immoral acts in the name of religion, of which we see so many at the present day.

Hence while tradition has an important bearing on and some value for our religious life, especially in its beginning. we should not so completely separate it from the other aspects of our religious life that it might degrade into meaningless formalism and dangerous fanaticism. In fact, we find four aspects in the genuinely religious life, all of which must combine to build up the highest form of religious faith. is first the traditional aspect from which we should draw and get the solid foundation of our religious life, if we are not to begin all'over again in every department of life and undertake a formidable task for which our life is too short and our intellect is too weak. Secondly, there is the rational aspect in which the individual's natural powers of thinking and reasoning are brought to bear upon the contents of tradition in order to enlighten and appreciate, rationalise and rejuvenate them. Without reason faith is as insecure as an edifice built

upon the sands, and no belief can stand long which is inconsistent with reason. Thirdly, there is the aspect of actual experience and immediate intuition, in which the religious person's cold intellectual understanding of the spiritual truths from without makes room for a direct realisation of and penetration into them, for a warm life of intuitive experience where the subject lives through the highest spiritual ideas and ideals. Lastly, there is the life of action, the practical or the moral aspect in which we are to act up to the highest religious faith, so that all else in our religious life may not fail but bear their proper and just fruits for the good of the world. Hence we may say with Prof Pratt that "the highest and the healthiest type of faith in the spiritual world, a faith that is warm but without fanaticism, reasonable but not coldly abstract, courageous yet never self-deceived nor disloyal to truth, calmly confident but never blind, and neither slavishly servile to authority nor yet lonely and separatist,—such a faith must draw its strength from all four of the sources."

Religion is essentially a matter of life and experience. The highest religious life should include all the four aspects of tradition, reason, experience and works. At its first or initial stage, tradition plays its just but limited part. This is the stage of what the Upanisads call Sravana or hearing where the mind is only initiated into the mysteries of the spiritual world through the silent influences of its social environ. ment. But that is only the beginning of our religious life. From this starting-point we are to move onwards and see things in the full daylight of consciousness. It is here that reason or reflection (manana) makes its special contributions to the religious life. What was previously accepted as a matter of mere faith and on the strength of an apparently external authority is made the mind's own in so far as it is understood by the mind as true and significant, rational and consistent. But then we require direct experience and actual realisation of what is intellectually understood and rationally conceived.

Hence the next stage in the growth of religious life is contemplation or devout meditation (nididhyāsana) in which the truths first accepted and then admitted, are experienced as directly given realities. And all this does not fail to bear its natural fruit. It gives a new turn to man's life and infuses a new meaning into his experiences. His life becomes attuned with the life of the universe and runs a mighty massive course of universal good that transcends all the narrow limits of blind tradition.

SATISCHANDRA CHATTRIRE

SHAKESPEARE

The rugged ways of life grew broad with thought,
As thou ascended'st painful days and years,
With freedom's might, to where the clouded lot
Of crippled lives was hemmed by sullen fears.
There was no dimness in the dominant gaze,
Which scanned the darkest shadows of the soul,
And quelled on quivering lips the awe-struck praise
Of virtue's triumph, while earth did writhe and roll
With love and childhood bleeding to the death,
Midst ruthless change of envious circumstance,
Whose treacherous force obeyed thy conquering faith,
While tongues of malice round thy heart did glance.
Earth's common sadness, cramped with racking thought
Still smiles through tears, as thou had'st preached and
taught.

NALINI MOHAN CHATTERJEE

UMAR KHAYYAM

Much has been written about Umar Khayyam and though a great mass of literature has arisen on account of the interest taken by Western Scholars in regard to his charming Quatrains, yet much of it is worth retelling.

Thanks to the genius of Fitzgerald, Umar Khayyam the Astronomer-Poet enjoys a celebrity in the West, especially in England and America, far greater than that which he has attained in his own country. His name, according to all his biographers, was Umar, but Karl Hermann Ethé gives it in full as Ghiyas-ud Din Abul Fatah Umar bin Ibrahim. Khayyam was the nom de plume adopted by him, and it means a tent-maker or a dealer in tents. But it is not certain whether he did actually prepare tents or traded in them. His father, Ibrahim, however, as is recorded by all historians, did manufacture tents and that was his only profession. Umar might have adopted the name of Khayyam from the profession which his father pursued. Many Persian poets similarly derive their name, from their occupation; thus we have Attar, "the druggist," Assar "the oil extractor," Suzani, "the quilt maker," Ghazzali, "the vendor of cotton-thread," and so on. Umar Khayyam alludes to his epithet in the following lines:-

"Khayyam, who stiched the tents of Science.

Has fallen in grief's furnace and has been suddenly burnt;

The shears of fate have cut the tent rope of his life,

And the Broker of Hope has sold him for nothing."

Umar Khayyam was born at Nishapur, one of the principal cities of Khorasan. At present it is a collection of poor-looking houses standing in the midst of ruins. The climate is said to be delicious, and there are some traces left of the magnificent irrigation works founded by Shapur and his successors; but the city

never recovered from the ravages of Changhiz Khan and his Tatar hordes in the middle of 13th century. Nishapur was the focus of Persian culture and the central point of world's intellectual activity, rivalled only by Cordova of the Khalifs. At a time, coeval with the later Saxon kings of England, when Europe was plunged in almost total intellectual darkness, Nishapur appears to have been the most important town of mediaeval Persia. It is said to have boasted of eight great colleges, founded by the Abbasid Khalifs and was specially renowned for its Ulamas, or men of learning, a title which comprises theologians, grammarians, poets, mathematicians, historians and writers and lecturers upon every branch of literature and science, and particularly upon questions of Theology and Qur'anic Exegesis, the Traditions of the Prophet and the Canons of the Muhammadan Law. The celebrated poet Anwari says, "If Paradise is to be found on the face of the earth, it is Nishapur; if not there, it exists not."

The date of the birth of Khayyam is recorded nowhere by any of his biographers, but it is said that he was contemporary with Nizam-ul Mulk, the celebrated Wazir of Seljuk kings. Alparsalan and Malik Shah. Nizam-ul Mulk, in his Wasaya writes thus:--" Among the most renowned Ulamas of Nishapur there lived one most illustrious sage called Imam Muwaffiqud Din, a famous expositor of the Qur'an and teacher of the Traditions and of Muhammadan Jurisprudence. It was a generally received opinion that every youth who read the Qur'an and expounded the Traditions before him attained to fortune and prosperity. For this reason my father sent me from Tus to Nishapur that I might apply myself to the study and discipline under him. There had lately joined my class Umar Khayyam and Hasan bin Sabbah, both of whom were of the same age as myself and of equal talents. We became friends. and when we went out from the Imam's class, we used to rehearse with one another the lessons we had just heard. One day Hasan said to us, 'It is the general opinion that the

disciples of Imam Muwaffiq attain to fortune; no doubt one of us will do so, even though all may not. What covenant or compact is there now between us?' I said, 'Whatever you please.' He answered, 'Whichever of us may attain to fortune shall share it with the others.' 'So be it,' rejoined we; and a mutual compact to that effect was accordingly entered into between us.'

But the above story of the three school-fellows, which for ages was accepted by all oriental scholars as a genuine historical fact, has recently been proved as untrue and it is held that the Wasaya is only a compilation written in the 9th century of the Muhammadan era and dedicated to a certain Amir Fakhr-ud Din, a descendant in the 12th degree of Wazir Nizam-ul Mulk (see Rieu, p. 446). It has also been discredited by Prof. Schukovsky and Dr. E. Denison Ross. The latter, in his introduction to Fitzgerald's Translation of the Ruba'iyat of Umar Khayyam rejects the story (vide p. 17, Catalogue of MS. in Oriental Public Library at Bankipur). Professor Browne in his Literary History of Persia (Vol. II, pp. 190-193) discards the legend and sets it aside as untrue. Professor P. B. Macdonald emphatically declares, "Chronologically it (the three schoolfellows legend) is impossible and historically it has no foundation" (vide Journal of the American Oriental Society, Vol. XX, p. 7).

When Umar was 17 years of age, he was sent by his father to study Qur'an and Hadis or Traditional Exegesis under the divine, Muwaffiq-ud Din. When he attained the age of 27, he was accomplished in all the branches of learning, including Science, Astronomy and Mathematics. Dr. Ross, in dealing with the life of Umar Khayyam, has mentioned that he knew the Qur'an by heart and was well versed in Traditions, Jurisprudence, Literature and Science. Shahristani, in his Tarikh-ul Hukama, states that Khayyam was a great scholar of his time; he was well versed in all the learning of the Greeks. He always exhorted man to seek the One Author of the Universe by purifying all bodily action in order to attain the

sanctification of the soul. He also used to recommend the study of Politics as laid down by Greek authors.

Nizam-ul Mulk, it is quite certain, patronized Umar Khayyam and received him with utmost cordiality, and remarked that a man of his merit ought to be attached to the royal service. "The greatest favour you can do me," said Umar Khayyam, "is, let me live in retirement, where, under your shadow and protection, I may occupy myself in amassing the riches of learning and in praying for your long life and fortune." And to this resolve he steadfastly adhered. The Wazir tells us that when he perceived that he spoke in sincerity, he granted him a yearly stipend of 1,200 misqals of gold payable from the Nishapur treasury.

Umar Khayyam then went back to Nishapur, and applied himself to the study of science, especially Astronomy, in which he afterwards attained a high degree of accomplishment. Later on, in the reign of Sultan Malik Shah he came to Merv, in the height of his philosophical repute, and the Sultan conferred many favours upon him, and raised him to the highest post attainable by men of Science.

Abul Fida relates that Umar Khayyam was appointed by Sultan Malik Shah as Astronomer Royal to the observatory which he established in A. D. 1074-75. While holding this office, Khayyam compiled some astronomical tables, of which mention is made by Haji Khalfa, in collaboration with 7 or 8 other astronomers and effected a reform of the old Persian Calendar, somewhat similar to the reform of the Julian Calendar made under the auspices of Pope Gregory XIII, five centuries later. Mr. Reinaud, the editor of Abul Fida's Geography, says that some authorities even prefer Khayyam's system to that adopted by Pope Gregory. This reformed calendar was called Tarikh-i Jalali, after the reigning

A misqal is a weight of rather more than a drachm and a quarter avoirdupois: but a "mitheal of gold" commonly means the coin called a dinar and at that period worth about 10 shillings.

monarch, Sultan Jalaluddin Malik Shah, and dates from the Naw-ruz or the New Year's Day, 21st March 1079.

Umar Khayyam was also highly distinguished as a mathematician. His standard work called "Demonstrations of the Problems of Algebra," written in Arabic, had been edited and translated by Herr F. Woepke of Bonn, and another work, "A Treatise on the Difficulties of Euclid's Definitions," is preserved in the Leyden Library. His works on Algebra enjoyed a high reputation for several centuries and raised him at once to the foremost rank amongst mathematicians of that age. Haji Khalfa, a Turkish bibliographer, in the skeleton catalogue of one or more great libraries of Damascus, known as his "Bibliographical Lexicon," mentions a set of astronomical tables named after the Sultan Malik Shah, under whose auspices they were doubtless compiled by Khayyam. The poet, in his Algebraical treatises above referred to, cites an Arithmetical work composed by him in demonstration of the exactitude of the Indian methods of extracting square and cube roots. No copies of the two latter appear to be extant, and Khayyam also, doubtless, composed other mathematical and astronomical works to which he seems to have attached little importance, as he did not trouble himself to provide for the preservation of these writings which would have also made his name glorious.

The oldest accounts which we possess of Umar Khayyam are contained in the Chahar Maqala of Nizami-i Aruzi Samarqandi, one of his disciples, and, be it noted, not in that section of the work which treats of Poets, but in that which treats of Astrologers and Astronomers. He relates in one of his anecdotes: "In the year A.H. 506 (A.D. 1112-13) Imam Umar Khayyam and Imam Muzaffer-i Isfizari had alighted in the city of Balkh, the street of slave-sellers, in the house of Amir Abu Sa'id and I had joined their company. In the midst of friendly conversation I heard Umar Khayyam say, 'My grave will be in a spot where the trees will shed their blossoms over me twice a year.' This thing it seemed to me would be impossible, though

I knew that such a one as he would not speak idle words. When I arrived at Nishapur in A.H. 530 (A.D. 1135-36) it being some years since that great man had died, I went to visit his grave on the eve of a certain Friday taking with me a guide to point out his tomb. So he brought me out to the Hira cemetery, and I found his tomb lay at the foot of a garden wall, over which pear-trees and peach-trees thrust their heads, and on the grave have fallen so many flowers that it was hidden beneath them. Then I remembered that saying which I had heard from him in the city of Balkh, and I fell to weeping. Though I witnessed this prognostication on the part of Umar, I did not observe that he had any great belief in astrological predictions."

In another anecdote Nizami-i Samarqandi relates: "In the winter of A.H. 508 (A.D. 1114-15) the king (presumably Sultan Muhammad bin al-Muzaffar), bidding him to tell Khayyam, who used to lodge at his house, to select a favourable time for him to go a-hunting such that there should be no snowy or rainy days. Khayyam after careful calculation for two days, fixed the date and he himself went and superintended the mounting of the king. When the king was mounted and had gone but a short distance, the sky became overcast with clouds, a wind arose, mist filled the atmosphere and snow began to fall. All present began to laugh and the king desired to turn back; but Khayvam said, 'Have no anxiety, for this very hour the clouds will clear away, and during the next five days there will not be a drop of moisture.' So the king rode on, and the clouds disappeared, and during those five days there was neither snow nor a drop of rain."

Umar Khayyam's great scientific fame, however, is nearly eclipsed by his still greater poetical renown, which he owes to his ruba'is (i.e., quatrains). The peculiar form of the ruba'i, viz., four lines, the first, second and fourth of which rhyme, while the third usually remained left out—was first introduced into Persian literature as an exclusive vehicle for subtle thought

on various topics of Sufi mysticism by the Shaikh Abu Sai'id bin Abul Khair, but Khayyam differs in its treatment considerably from Abu Sa'id. Although some of his quatrains are purely mystic and pantheistic, most of them bear quite another stamp.

Before proceeding to put down Khayyam's quatrains under classified heads, it would be better to state here the existing intellectual currents of his time, the ideas and sentiments which influenced the minds of his contemporaries. Some of these ideas naturally acted on him by attraction and some by repulsion; but in whichever way they acted, they constituted the main foundations of his opinions; these were mainly the Hikmat or Philosophy, Shariat or Sacred Law, the Ma'rifat Mysticism, and Ash'ar or Poetry. Khayyam was a product of his time, and each one of the intellectual currents stated above, met and mingled in his mind. Religion, philosophy, mysticism and poetry all had their influence on him in varying proportions. He was thoroughly grounded in the Shari'at and he carried away firm convictions of Tawhid, that is, existence of One God and Fa'il-haqiqi, the True Omnipotent Actor. These convictions come out again and again in his quatrains. A charge of atheism and materialism is brought by some against Khayyam, and this, it may be said, is owing to his study of science and Greek philosophy, which leads one into a realism and thence into materialism. In his quatrains one constantly comes across recognitions of the limitations of science, of its inability to fathom the beginning or end of the Kosmos, or to travel one step beyond the limit of human thought and comprehend the mysterious essence of the TRUTH. He held the doctrine of predestination and this idea can be traced in several of his quatrains. He regarded life as a very doubtful blessing, and at times, he expressed his hatred for it. He is never tired of dwelling on the chances and changes of this mortal life. on life's brief duration and on the swift passing of youth. Even the glorious memories of past national greatness, of Khosraws, of

Jamshid and of Fariduns only affect him as so many instances of transitoriness of human greatness and the vanity of human glory. More frequently he expressed his religious emotions in the language of the Sufis, which would imply entire concurrence with the rest of the Sufi doctrine, namely, the spiritual intuition, the ecstasy and communion of the soul with the ONE.

Let us now deal with the philosophy of Khayyam and his religious and secular views in the light of his quatrains and give a few examples under each head by way of illustration.

1. In praise of the beloved:

Arise and give me wine, from speech forbear, To-night thy lips shall be my only fare; Give me some wine as ruddy as thy cheeks, My good resolves are loosened like thy hair.

O fair whose cheeks checkmate red eglantine, And draw the game with those fair maids of Chin; You played one glance against the king of Babil, And took his pawns, and knights, and rooks, and queen.

2. Predestination:

Who was it that did knead my elay? Not I. Who spun my web of silk and wool? Not I. Who wrote upon my forehead all my good And all my evil deeds? In truth, not I.

When Allah yoked the coursers of the sun, And launched the Pleiades, their race to run, My lot was fixed in fate's high chancery; Then why blame me for wrong that fate has done?

Who framed the lots of quick and dead but Thou?
Who turns the troublous wheel of heaven but Thou?
Though we are sinful slaves, is it for Thee
To blame us? Who created us but Thou?

, 3. Hypocrisy of the Great—Impiety of the pious:

O City Mufti, you go more astray Than I, although to drinking I give way; I drink the blood of grapes, you that of men; Which of us is the more bloodthirsty, pray?

Fools, who of prayer-mats make such great display, To vain hypocrisy a tribute pay; Strange under cover of this saintly show They live like heathen, and the faith betray.

A Shaikh beheld a harlot and quoth he, "You seem a slave to drink and lechery;" And she made answer, "What I seem I am, But, Master, are you all you seem to be?

4. Catholic views:

Pagodas, like as mosques, are homes of prayer, 'Tis prayer that church-bells chime unto the air, Yea, Church and Ka'ba, Rosary and Cross Are all but divers tongues of world-wide prayer.

5. Irreligious utterances:

(a) Singing the praise of wine:

So many cups of wine will I consume, Its bouquet shall exhale from out my tomb, And every one that passes by shall halt, And reel and stagger with that mighty fume.

Comrades I pray you, physic me with wine, Make this wan amber face like rubies shine, And, if I die, use wine to wash my corpse, And lay me in a coffin made of vine.

We make the wine-jar's lip our place of prayer, And drink in lessons of true manhood there, And pass our lives in taverns, if perchance The time misspent in mosques we may repair. Endure this world without my wine I cannot Drag on life's load without my cups I cannot I'm slave of that sweet moment when they say, "Prithee, take one more goblet," and I cannot.

(b) Flouting the idea of the existence of Paradise and Hell:

They preach how sweet those Houri brides will be, But I say wine is sweeter—taste and see, Hold fast this cash, and let that credit go, And shun the din of empty drums like me.

Get minstrel, wine and Houri, if you can, A green nook by a streamlet, if you can, And seek naught better; babble not of hell, But find a better heaven, if you can.

In Paradise are Houris, as man trow,
And fountains with pure wine and honey flow;
If these be lawful in the world to come,
May I not love the like down here below?

(c) Charging the sin of the created to the Creator:

When Allah mixed my clay, He knew full well My future acts, and could each one foretell; Without His fiat nothing can I do; Is it then just to punish me in hell?

With many a snare Thou dost beset my way, And threatenest, if I fall therein, to slay; Thy laws pervade the universe, yet Thou Imputest sin, when I do but obey.

6. Eat and drink, for to-morrow ye die:

Life's caravan is hastening on its way; Brood not on troubles of the coming day, But fill the wine-cup, ere sweet night be gone, And snatch a pleasant moment while you may. Since no one can assure thee of the morrow, Rejoice thy heart to-day, and banish sorrow With moonbright wine, fair moon the moon in heaven. Will look for us in vain on many a morrow.

7. Address to the Deity:

I am an erring slave, accept Thou me. My soul is dark, make me Thy light to see, If heaven be but the wage for service done, Where are Thy bounty and Thy charity?

The world is baffled in its search for Thee, Wealth cannot find Thee, no, nor poverty; All speak of Thee, but none have ears to hear, Thou'rt near to all, but none have eyes to see.

Lord, I am tired of this low state of mine,
This wretched lot, this beggary of mine;
Thou makest all from naught, bring me from naught
Into that sacred being which is Thine.

8. Imploring pardon:

O Thou who know'st the secret thoughts of all, In time of sorest need who aidest all, Grant me repentance, and accept my plea, O Thou who dost accept the pleas of all.

Though I had sinned the sins of all mankind, I know Thou wouldst to mercy be inclined; Thou sayest, 'I will help in time of need'; One more in need than me where wilt Thou find?

9. Resignation to the will of God:

O heart this world is but a hollow show, Why should its empty griefs distress thee so? Bow down, and bear thy fate, the eternal pen Will not unwrite its roll for thee, I trow.

With outward seeming we can cheat mankind, But to God's will we can but be resigned; The deepest wiles my cunning e'er devised. To shirk divine decrees no way could find, 1'

10. Tyranny of Fate or Jawr-i Falak:

For me heaven's sphere no music ever made, Nor yet with soothing voice my fears allayed; If e'er I gained a breathing-space of joy, Into woe's grip I was at once betrayed.

Ah wheel of heaven to tyranny inclined, 'Twas e'er your wont to show yourself unkind; And, cruel earth, if they should cleave your breast, What store of buried jewels they would find.

O wheel of heaven, you thwart my heart's desire, And rend to shreds my jubilant attire; The water that I drink you foul with earth, And turn the very air I breathe to fire.

11. Vanity of human glory:

At Tus a bird perched in the ruined street,
And on the skull of Kaus set his feet,
And make complaint, "Alas, alas, poor king,
Hushed are thy bells, thy drums have ceased to beat."

Yon palace, towering to the welkin blue, Where kings did bow them down, and homage do,— I saw a ringdove on its turrets perched, And thus he made complaint, "Coo, Coo, Coo, Coo."

In these proud halls where Bahram once held sway The wild roes drop their young and tigers stray, And that imperial hunter in his turn To the great hunter Death is fallen a prey.

12. Emotion in the language of Sufis:

My law it is in pleasure's paths to stray,
My creed to shun the theologic fray;
I wedded Luck, and offered her a dower,
She said, "I want none, so thy heart be gay."

In this our round of coming and of going Beginning and conclusion pass all knowing; No wight in all the world can tell us truly Whence we have come and whither we are going. The complaint of Khayyam against his contemporaries may obviously be connected with the known facts of the poet's life. The persecution to which he was subjected was on account of his impious opinions. His remarks on Paradise and Houris, and on Sufis and pious people as "men of externals" and on other sacred subjects raised such a feeling of opposition against him that at one time his life was in imminent danger. On account of these impious utterances, Umar Khayyam was bitterly hated by the clergy, the religious and the pious, and fell into disrepute not only amongst his own countrymen but also amongst the other followers of Islam, and thus his poems became discarded and neglected. The orthodox under their respective leaders, banded themselves together against him and compelled Khayyam for a time to leave his native land and go to exile, of which he speaks in the following quatrain¹:—

My wretched body suffered in exile;
Ancestral fame helped me not for a while;
Life pined away without a moment's joy,
I know not round which corner death would smile.

His poems were obviously not all written at one period of his life, but from time to time, just as circumstances and mood suggested, and under the influence of the thoughts, passions, and desires which happened to be uppermost at the moment. It may be that the irreligious and epicurean quatrains were written in youth, and the devotional ones in his riper years.

Khayyam's death, it is generally agreed, occurred in the year A. H. 517 (A. D. 1123-24) and he himself states, in the following quatrains, that he lived a hundred years:—

"That which I am, I am, O Lord, by Thy decree; An hundred years' ease Thy grace hath fostered me; An hundred more I fain would sin, so I might see Whether's the more, my sin or Thine indulgency."

¹ This quatrain is given in Lucknow edition and has been rendered into English by the writer.

Since Khayyam was contemporary with Nizam-ul Mulk, and as the latter was born in A. D. 1018, we may therefore assume that Khayyam was about 105 years old, more or less, at the time of his death.

There are two episodes related in connection with Khayyam's death. One is that he was one day picking his teeth with a tooth-pick of gold and was engaged in studying the chapter on Metaphysics from Avicenna's Book of Healing. When he reached the section on "The One and the Many," he placed his toot-pick between the two leaves, arose, performed his prayers, and made his last injunctions. He neither ate nor drank anything that day, and when he performed his last evening prayer, he bowed himself to the ground, and said as he bowed, "O God verily I have known Thee to the extent of my power; forgive me therefore. Verily my knowledge of Thee is my recommendation to Thee." And so saying he died.

In an other episode it is related that one day Khayyam was drinking wine in company of some of his chosen friends. Suddenly a gust of strong wind arose, the lamp was blown out and it became dark. The goblet of wine dropped from Khayyam's hand and was broken. At this he was very much annoyed and in the state of drunkenness he said:

"Thou hast broken, O Lord, my goblet of wine, And closeth the door of pleasure of mine, Hast suffered to fall the ruby wine, Art Thou also intoxicated with wine?"

No sooner he had uttered these words, his face at once turned black and when light was brought in, his friends on looking at his face expressed their abhorrence. Khayyam sent for a mirror and having looked his face in it, smilingly said in extempore verse:—

"Was e'er man who never went astray?
Did ever mortal pass a sinless day?

If I do ill and Thou repay with ill, Wherein does our behaviour differ, pray?"

Saying this he looked into the mirror again. He observed that his face had become bright and shining. He put down his head in prostration to God and breathed his last.

In conclusion, I might say a few words about the genuineness of the majority of the Quatrains which are ascribed by Fitzerald, Whinfield and others, as Umar's, but which are also to be found also among the works of many eminent poets. This particular matter has nicely been dealt with by the late Professor Edward Browne (vide Literary History of Persia, Vol. II). In my opinion, however, all the quatrains which are generally based upon free-thinking, can safely be attributed to Khayyam, who alone is responsible for such thoughts and on which account alone he is so popular in the West.

Recently there was a controversy as to the authorship of the quatrains described as Umar's, raised by Dr. A. H. Millar in whose opinion Khayyam was only a myth (see The Englishman (Daily, Calcutta), of December 27, 1926). This was ably refuted by Dr. E. Denison Ross and he has proved satisfactorily that there is really no room for controversy at all (vide The Englishman, January 3, 1927). The late Shams-ul Ulama Shibli has also devoted many pages of his Shi'rul Ajam (Vol. II) to this great poet, discussing his philosophy of nature and the liberal views held by him.

Before I finish it is desirable that a few words, regarding the language and style of the quatrains of Khayyam, should be said. Though he is ranked by the Persians themselves as a third-rate poet, still in writing quatrains he is second to none. Khayyam has written his quatrains in an easy, smooth and flowing style, free from uncouth and harsh forms of construction. Throughout his composition he has neither used high-sounding inflated words nor any rhetorical or such other embellishments to puzzle the reader. Though in his quatrains he has dealt with philosophical, mystical and other sublime subjects,

yet the language in which he puts them is so simple that a man of ordinary ability and intelligence can easily comprehend them. The eloquence and force of his composition has added interest to his quatrains and have called forth the admiration of his readers.

M. KAZIM SHIRAZI

LOVE

Tonight, you're not thinking of me;
You would start, were I mentioned by name.
In your mind a dead thought, covered up,
Sunk deep in the dark of the past,
Buried by days and by nights,
There I lie.

Time has been kinder to you;

The years but bring me more pain.

You would rather forget, and you do.

I can't. My heart and body and brain

Are tortured with love of you.

There's nothing in life but love
And YOU'RE love and life to me.
In the losing of both I've died
Yet deathless misery
Lies wailing at my side
For ever unfree.

Agony that brings sweat

And longing that tears the heart
Stinging eyes, salty and wet

And strangled sobs in the night
Bitter, bleeding life, torn apart
Its wounds all out of sight.

Death? Would death be kind?
Would it still the anguish of mind?
Death, dark and silent and blind?
Then it would be kind.

IN MEMORIAM

Professor Henry Stephen, M.A., D.D., Ph.D.

A saint and scholar has passed away from earthly society— one for whom the East and the West are mourning with equal depth of feeling—one who was a prince among educationists—one who knew how to win the heart and how to stimulate the intellect, how to lead and how to follow—one who not only had high ideals but translated them into daily practice—one, in short, to whom it was given to preach Christianity by his daily life.

Henry Stephen, the subject of this article, graduated M.A. with Second Class Honours in Classics and First Class Honours in Mental Philosophy at Aberdeen in 1870 and was the Hutton Prizeman of his year in the University. A predecessor of his, one of Dr. Duff's colleagues in the General Assembly's Institution, Rev. John Macdonald, also was Hutton Prizeman. Henry Stephen studied subsequently in Aberdeen Free Church College—a Divinity College—and in Germany to which, as he used to say himself, the reputation of Hermann Lotze who was distinguished as a physiologist and writer on Æsthetics and as one of the acutest metaphysical thinkers since Hegel, had attracted him. For years Professor Stephen was known in Calcutta and Bengal as one widely read in German Philosophy and as its most lucid interpreter.

He left Scotland in 1881 and joined the staff of the Free Church Institution in January, 1882. Before this he had been University Assistant in Greek (Aberdeen). A Scotch monthly magazine published a paragraph about him at the time he came out to India, mentioning the fact that Dr. Duff had tried several times to persuade him to accept a Professorship in the Free Church Institution, Calcutta, but had failed. This writer of that paragraph also stated that this brilliant scholar had received

the offer of a University Chair in Australia but had declined it. It was rather curious that he should have accepted a College Professorship in Calcutta, having declined a University Chair elsewhere. But he was destined to make a splendid contribution to India's intellectual and spiritual enrichment and so he accepted the offer of the Foreign Missions Committee of the Free Church of Scotland.

Professor Stephen taught in the Free Church Institution (which later on came to be known as Free Church of Scotland's Institution and Duff College) English Language and Literature, Philosophy and Botany. For a short time he taught English, Psychology and Botany also in the First Arts classes of Free Church Girl's High School (now known as St. Margaret's School). It may be mentioned here that Astronomy was one of his hobbies, though he never taught it in the College. He had several telescopes of his own and his delight in astronomical observations was surpassed only by his delight in philosophical studies. In a few years his success as a teacher attracted many students to the College. This College (Free Church Institution, the second college founded by Dr. Duff) had been steadily going down in numerical strength since 1879, while the other Institution founded by Dr. Duff and known as the General Assembly's Institution was steadily growing in popularity and consequently was attracting larger and still larger numbers as the years rolled away: and no wonder, for it had as its Principal and Professor of English and Philosophy a brilliant scholar and orator, Rev. William Hastie, who subsequently became Professor of Systematic Theology in the University of Glasgow and is known to Indian students by his translations of German works, its senior Professor of English was James Wilson who as a teacher was unsurpassed in popularity in Bengal and its Professor of Mathematics was the far-famed brilliant mathematician. Gaurisankar De. For a time it was feared that the Free Church Institution might collapse, so small were the numbers attending the College. But at this juncture Rev. James Robertson, an enthusiast in

educational matters, was appointed Principal of the College. He had been formerly a Professor of the College and for some years Principal of Doveton College, Calcutta. He was a good teacher and organizer. He was fortunate in having as his colleague the subject of this Notice and he also secured the services of Babu Surendranath Banerjee for teaching English. Mr. Banerjee was a very popular man and subsequently rose to be the foremost political leader of the Indian nation. Professor Stephen's brilliant success as a teacher combined with Professor Banerjee's eloquence acted as a charm. Large numbers were enrolled in the College and it at once became one of the leading colleges in the city. Mr. Stephen worked on indefatigably, attracted some of the most intellectual young men of Bengal to the college and in a few years came to be recognised as the best teacher of Philosophy and one of the two or three best teachers of English in Bengal. The teaching of Botany he dropped after three years for lack of students. He raised the college to a status unprecedented in its history. More than once he officiated as Principal of the College. As Officiating Principal he taught the Bible in addition to English and Philosophy, taking with him always the Greek Testament to the lecture room and using it for his lectures.

His gift lay in making the most abstruse subjects whether in English Literature or Philosophy clear and readily intelligible to the most ordinary student and this was due to his fine analytical faculty. In his lectures supplemented by notes which he always dictated he imparted to his students a wide and critical knowledge of what he taught. The present writer remembers that when he was a first-year student of the Free Church Institution, Mr. Stephen in lecturing on Realism, Nominalism and Conceptualism in connection with Jevons' Elementary Lessons in Logic dealt with the subject so clearly, critically and comprehensively that he thought that he knew enough to discuss it with advanced students of Philosophy.

Mr. Stephen continued to work as Professor of English

and Philosophy in the Duff College till 1908 when the union of this College with the General Assembly's Institution took place and a new college was ushered into existence, as the result of the union, under the name of Scottish Churches College. this college he worked as Professor of English and Philosophy till 1913 when he retired. The brilliant results achieved by the Free Church Institution or Duff College and the Scottish Churches College in B. A. Honours English and Honours Philosophy and M. A. English and Philosophy for in were to a consideryears a period of about thirty able extent due to his teaching. The present writer once asked him why he had retired from the Scottish Churches College. He replied that while in the Duff College he taught all that he wanted to teach—an arrangement which made for efficient teaching-in the Scottish Churches College there was too much division of work and one realised, so he put it, that as one was not allowed to do all the teaching that one wanted to do, but large sections of subjects in which one was interested were made over to others, one could not help feeling hampered in work. This shows that while he was getting old, he did not feel like an old man, but was full of life and youthful vigour, and earnest worker as he was, he wanted to teach as much as possible, for, should not a Professor do justice to his subjects and to himself? In fairness to all concerned, many would say, however, that all the Professors in a college should have sufficient work. At the crowded farewell meeting held in his honour in the Hall of the Scottish Churches College he said to the students from whom he parted with great sorrow: "Fear God. Fear no man. Read the best of all books, the New Testament, and specially the Gospels." Truly this was an inspiring message coming right out of the heart of one who lived a dedicated life and who in the words of the poet "saw in temporal policy the Eternal Will."

Another meeting was held in Overtoun Hall to bid him good bye. This was a public meeting held under the auspices of a local Association. After speeches lauding his life and work had been delivered, he was taken in a carriage by students who would not have it drawn by horses but drew it themselves along a crowded thoroughfare of Calcutta to his destination.

No teacher in Bengal was more loved and respected by students and the secret of it was that the education they received at his hands was not only intellectual, though they had a rich intellectual treat whenever he lectured. This was due to his profound scholarship, vigorous thinking and lucidity of expression. The noble character which he uniformly presented before his students was in itself a factor of the higher education they received. Such conjunction of condescension and ability, such self-denying ministrations to the wants of youthful charge, it has seldom been our lot to witness and admire.

In 1914 he was appointed Professor of English in the Calcutta University. He filled the Chair with great distinction. He had been long connected with the University as an Examiner for the highest examinations in Arts, as a Fellow and Member of Senate since 1897 and as a member of the Syndicate for over a year. He, however, never liked to be on the Syndicate unless it was to represent an affiliated college. He used to say that work on the Syndicate was meant for men with a taste for details of administrative work as distinguished from a taste for formulating the general policy of the University. He also worked as Examiner in connection with other Indian Universities. The papers he set were always models of their kind. Though from the 1st of June, 1927, he had ceased to be University Professor of English, his connection with the Calcutta University as a Senior Fellow continued till his death on 1st September.

The University of Aberdeen—his Alma Mater—conferred on him the Honorary Degree of Doctor of Divinity and the University of Calcutta—the premier University of India and the scene of his labours—conferred on him the Honorary Degree of Doctor of Philosophy. These degrees he richly deserved. He had a profound knowledge of Philosophy and a scholarly

knowledge of Latin, Greek and German. He knew also Hebrew and French. Indeed, his knowledge of Hebrew was a determining factor in the decision of the Senate of the University of Aberdeen to confer on him the degree of D.D.

Extremely modest and unassuming he would not describe himself as 'Professor' in the splendid text books on Psychology and Metaphysics of which he was the author, though he was the holder of a University Chair, but simply as 'Fellow of the University of Calcutta.' His papers on 'Coleridge as a Thinker' and 'The Philosophy of Anarchy and the Idea of Time' contributed to Vol. I, Sir Asutosh Mookerjee Silver Jubilee Commemoration Volumes, will repay perusal.

Bengal mourns his loss to-day, may will continue to do so for years to come, as he was a man who could not be easily replaced. The ideal he set before teachers in Bengal will not be readily forgotten and generations of teachers yet unborn will surely profit by it when they will hear or read about it.

In Longfellow's Evangeline we read

Far in the West there lies a desert land, where the mountains Lift through perpetual snows their lofty and luminous summits.

In the intellectually arid tracts of Bengal in the eighties, arid, comparatively speaking of course, there appeared some mountains that lifted their lofty and luminous summits, and one of these was Henry Stephen.

Truly we might say of him in the words of Shakespeare

His life was gentle; and the elements So mix'd in him that Nature might stand up And say to all the world 'This was a man!'

Or again, almost in the words of the prince of poets and dramatists

He was a man, take him for all in all.
We shall not look upon his like again.

Or, in the words of Tennyson he might have been addressed thus, while living—

And thou art worthy; full of power; As gentle; liberal-minded, great, Consistent; wearing all that weight Of learning lightly like a flower.

Memorial meetings were held in his honour in Scottish Churches College, Vidyasagar College, Ripon College and in the Post-Graduate Arts Department of the Calcutta University. Perhaps they were held in some other colleges also. At a recent Senate meeting the Vice-Chancellor of the University paid a tribute to the noble qualities of his head and heart. Calcutta colleges and the University Post-Graduate classes were closed in honour of his memory. The Corporation of Calcutta felt that one of the worthiest citizens of the quondam metropolis of India had passed away and in solemn silence the House passed an appreciative Resolution, aldermen and councillors all standing.

In view of the fact that Dr. Stephen worked for nearly half a century as College Professor of English and Philosophy or University Professor of English, the most suitable memorial of this great man will be an endowed University Chair of English or Philosophy, preferably the latter, as Philosophy was the subject in which he delighted to lecture. Let the public of Bengal rise to the occasion and contribute liberally so that a University Chair to be named after him may be endowed. He taught more than one generation of students in Bengal and contributed much to her cultural development. When the history of Western education in Bengal comes to be written with fulness of detail, his name will stand out in bold relief as that of a devoted scholarly worker whose teaching and noble educational ideals inspired and uplifted men, enlarged their intellectual horizon, broadened and liberalized their views and dowered them with the vision of the true, the good and the beautiful.

"Wherever there is knowledge, wherever there is virtue, wherever there is beauty, he will find a home."

SIR ASUTOSH AND THE INDIAN UNIVERSITIES BILL OF 1904

During the last few months repeated references have been made in various articles appearing in different newspapers and journals to the part played by the late Sir Asutosh Mookerjee when the Indian Universities Bill was before the Imperial Legislative Council in 1904. The trend of these criticisms has been that Sir Asutosh was one of the staunchest supporters of that measure. It is not the purpose of this article to dwell at length on the nature of the depravity to which human mind may sink when it engages itself in concocting facts for the purpose of calumniating the dead. The facts which are given below will constitute a sufficient answer; they have not been borrowed from the domain of imagination but are gathered from the pages of the Proceedings of the Council of the Governor General of India for 1904 (Vol. XLIII) published by authority of the Governor General.

We may briefly record here the nature of the present constitution of the Senate. There are one hundred Ordinary and ten Ex-Officio Fellows. Of the one hundred, eighty are nominated by the Chancellor, ten are elected by the Registered Graduates and ten are elected by the different Faculties which are constituted by the Senate itself.

We find from the Proceedings of the Imperial Legislative Council that on the 8th January, 1904, the Hon'ble Dr. Asutosh Mukhopadhyay, as he then was, took his seat as an additional member of the Council. On the same day on the motion of the Hon'ble Mr. Raleigh he was added to the Select Committee on the Bill to amend the law relating to the Indian Universities, which the Council had previously appointed. On the 18th March, 1904, Mr. Raleigh moved that the Report of the Select

Committee be taken into consideration and the Council proceeded to discuss the various amendments proposed which lasted for three days, 18th, 19th and 21st March.

It becomes at once manifest that Mr. Gokhale and Dr. Asutosh were the two prominent members who proposed the largest number of amendments. On some of the amendments the House divided and the results of the divisions are printed on the pages of the Proceedings. Usually the amendments were lost, five or six voting for and about fifteen or sixteen voting against them. The Government members, who were Europeans, and all the other European members, except on two occasions, voted on one side. They also almost invariably commanded the votes of three non-Europeans whose names might here be noted. They were: His Highness the Aga Khan, Sir R. G. Bhandarkar and the Raja of Sirmur.

The chief criticism levelled against Sir Asutosh is that he had a very large share of responsibility for the officialised constitution of the Senate. We should consider some of the amendments which he brought forward before the Council with a view to minimise the official element in the Senate and to recognise the claim of the teachers as such.

The first amendment which arrests our attention is at page 151 of the Proceedings where we find that Dr. Asutosh moved that ten Fellows should be elected by Registered Heads of, or Professors in, affiliated institutions and University Professors and Lecturers. In moving the amendment he observed, "I do not desire to conceal my deep regret that the Bill as amended makes no provision for election by the constituency which I have named, a constituency which in my opinion has the first and foremost claim on the University." This omission, he added, was "a great defect in the Bill." Five members addressed the Council on the motion and with the exception of Mr. Gokhale all of them opposed it. The observations made by Dr. Asutosh in reply to the debate were couched in words that are worth quoting. He said,

"Are our teachers throughout the country qualified to be trusted with the principle of election? If they are not, let us say so in unmistakable terms; and I add without hesitation that if that be our decision and if our teachers really deserve this want of confidence, the sooner we throw this Bill into the waste paper basket the better for every body concerned."

Referring to Lord Curzon who was in the Chair, Dr. Asutosh thus concluded: "I add without hesitation that if the present Government do not make this experiment, the time will come when some future Viceroy, such as Lord Lansdowne, will do so and the credit will belong to some future Viceroy of putting this measure upon the Statute Book."

The result of the division was that five voted for and seventeen against the proposal, the five members being: Dr. Asutosh, Rai Bahadur Bepinkrishna Bose, Nawab Saiyid Muhammed, Mr. Gokhale and Rai Sri Ram Bahadur. Of the three non-Europeans who voted against the motion, it may be mentioned that Sir R. G. Bhandarkar, himself a distinguished teacher, was one.

The next amendment brought forward by Dr. Asutosh was with a view to secure the omission of that clause in the Bill which made Fellowships tenable only for five years. In the course of his speech he said:

"This rule will undoubtedly tend to impair the independence of nominated Fellows.In the vast majority of instances nominated members of the Senate, at least such of them as may be anxious to retain a seat on the Senate, will shape their conduct in conformity with the views expressed or supported by high officials."

The proposal was of course opposed by Government and was negatived. Mr. Gokhale and Dr. Asutosh also respectively moved that the term of Fellowship should at least be extended to ten years and seven years. The observations of Mr. Gokhale in this connection are indeed instructive:

"A Chancellor in an Indian University," he said, "is the

head of the Government and it has happened in the past and it may happen again that he takes little or no interest in University affairs, specially in connection with nomination of Fellows. In such cases the work is likely to be left with the Secretary of the Education Department. Now unless it is insisted that every member of the Civil Service and every officer of the Government must be trusted absolutely, I really do not think that any exception need be taken to the argument that proper care may not be taken at times in the appointment of Fellows."

These amendments, as it was anticipated, were rejected by the Council, the same five mentioned above supporting them and sixteen voting against.

The next amendment of Dr. Asutosh to which we would refer was to the effect that "with a Senate of one hundred, thirty seats should be thrown open to election, fifteen to be filled up by election by Registered Graduates and fifteen by election by the Faculties." The motion was opposed by Government on the ground that "the experience of election in the Universities had been a short one." The Council divided once again; the same five cried "Aye" and the same sixteen cried "No" and the motion was negatived.

Another amendment of Dr. Asutosh was to secure the representation of non-official teachers on the Senate. He proposed that "not less than one half of the members of the profession of Education elected and nominated (to the Senate) should belong to Colleges not owned or managed by the local Government." The Government opposed it, Mr. Raleigh, its spokesman, admitting "the truth of much that the Hon'ble Dr. Asutosh had said," at the same time piously hoping that the interests of the private Colleges "would always be carefully considered." So this motion also was negatived.

We now refer our readers to another important amendment which Dr. Asutosh brought before the Council which by itself would give a lie direct to the assertion that has been made that he was responsible for the retrograde constitution which

Lord Curzon's Act of 1904 provided the Indian Universities with. The object of the amendment, as he said, was to define the character of the Senate and thus to remove what appeared to him to be the greatest defect in the Bill. The proposal was to insert four new clauses, two of which were to the following effect.

- The ordinary Fellows of the University shall be persons distinguished for the attainments in any branch of literature. Science or Art, or for their devotion to the cause of education.
- (ii) Not less than two-fifths of the total number of the Fellows shall be non-officials."

He thus observed in the course of his speech, "What guarantee is there, I ask, that the principles which it is now conceded ought to regulate the constitution of the Senates of our Universities, will not in the course of a dozen years prove quite unfamiliar to less gifted and less qualified Chancellors and Vice-Chancellors? My Lord, I venture to submit that this desire to see these principles embodied in the Statute Book cannot in any sense be regarded as an infirmity of a lawyer. There are obvious advantages to be secured by the adoption of the course which I advocate; if these principles are clearly formulated and if they find a place in the Act, they become widely known, easily ascertainable and little liable to capricious variation; their presence on the Statute Book can do no possible harm. The only persons who may find it inconvenient to see these principles formulated in the Statute are those who a few years hence may find it necessary or convenient to disregard or deviate from them."

The motion was opposed by Government, Mr. Raleigh, the member in charge, admitting that there was considerable force in the arguments which had been addressed to the Council by the mover. Mr. Gokhale, it need not be added, readily supported Dr. Asutosh. The Council divided, but this time there was one addition to the Valiant Five. Be it said, however, that it was not an Indian who parted the company of Government on this occasion, not even the great scholar, Sir R. G. Bhandar-kar. The sixth member was Mr. (now Sir) Theodore Morrison.

The next amendment of Dr. Asutosh had nothing to do with the constitution of the University. It was indeed of a novel character; the Pioneer of the 19th March, 1904, described it as a plucky and sporting one. The proposal was that every Ordinary Fellow of the University should during his Fellowship annually pay to the University chest a sum of Rs. 50 for the creation of a fund to be devoted exclusively to the objects for which the University was established. It was opposed and supported by Mr. Gokhale Government Mr. Theodore Morrison. Dr. R. G. Bhandarkar opposed it, saying that if the honour of Fellowship could be purchased for Rs. 50 a year, it would be no honour at all. Dr. Asutosh's reply to this point was effective. He said, "My Hon'ble friend is no doubt aware that there is such a distinction as a Fellowship of the Royal Society (F.R.S.) and although four red sovereigns have to be paid as an annual subscription, it is rightly regarded as the highest honour which a scientific man can aspire to. If a Fellowship of the University is thrown open to every person who can afford to pay Rs. 50 a year it will undoubtedly cease to be an honour and distinction. But if it is conferred with discrimination upon deserving individuals I fail to see how it can cease to be valued simply because a pecuniary value is attached to it." The Council divided. But this time there was still another addition; His Highness the Aga Khan voted for the proposal. The motion was of course negatived.

The amendment to which we would next refer was moved by Mr. Gokhale; the notice of an identical proposal was given by Dr. Asutosh. It was to omit the clause providing that the Director of Public Instruction would be an *Ex-officio* member of the Syndicate. Mr. Gokhale pointed out that it was likely that a considerable proportion of the members of the Syndicate would be professors from the Government Colleges. "The

presence of the Director," he said, "as a matter of course in the Syndicate was likely to impair the independence of the members." Dr. Asutosh supported the proposal which was of course negatived.

The next amendment which was moved by Mr. Gokhale and supported by Dr. Asutosh was to curtail the powers of Government, so far as they related to the question of granting affiliation to the Colleges. The Bill provided that the Syndicate and the Senate were merely to report and Government was to pass final orders on an application for affiliation. might thus even over-ride the unanimous opinion of the Syndicate and the Senate. The amendment of Mr. Gokhale was opposed by Government. When the division was taken, only four supported the proposal, Nawab Syed Mohammed voting this time with Government.

The next amendment which also was actually moved by Mr. Gokhale was with regard to the deletion of the powers which Government proposed to attach to itself in respect of additions to and alterations in the revised Regulations that were to be drawn up by the different Universities in pursuance of the provisions of the Bill. It was proposed by Government that to it should belong the right not merely of vetoing the proposals made by the University, but of also taking the initiative and altering the recommendations of the Universities in any manner that might be thought desirable. This provision in the Bill was vehemently opposed by the non-official members, even Dr. Bhandarkar in this instance speaking against it. Dr. Asutosh in this connection observed. "Let the Universities be reconstituted with the utmost care and caution. But if the Universities are to take root and grow on Indian soil the reconstituted Senate must be trusted and allowed to enjoy some degree of independence." The Council divided. This time there were three additions to the rank of supporters; Dr. Bhandarkar, Mr. Morrison and the Aga Khan voting in favour of the amendment which of course was lost.

The last amendment which Dr. Asutosh moved was in respect of the right of the Chancellor to cancel the appointment of any Fellow at any moment. His proposal was that such cancellation, if it ever takes place, should be made "with the consent of not less than two-thirds of the members of the Senate present at a meeting specially convened for the purpose." The amendment, Mr. Raleigh thought, was hardly necessary; it was negatived.

We think we have referred to a sufficient number of amendments in order to make it possible for all honest critics to exactly realise the attitude taken up by the late Sir Asutosh Mookerjee so far as the Universities Bill was concerned. In addition to all these amendments we have before us his lucid and impassioned speech at the close of the debate. Therein he made his position perfectly clear. He referred to some of the sound principles of educational reconstruction which the Bill had attempted to provide for; he referred to the duty which according to the Bill was imposed on the Universities to carry on higher instruction and research; he referred to the better relations which were sought to be established between the University and its affiliated Colleges; he referred to the improvements in hostel life and students residence which the Bill had in view. These were some of the features of the Bill which had his support, but when he came to deal with the constitution of the University he had a different tale to record. "My Lord," he said, "I wish I could conscientiously say that the constitutional provisions of the Bill are satisfactory and are furnished with the necessary safeguards. Every effort we have made for securing a statutory recognition of the non-official and of the Indian element on the Senate has been strenuously opposed on behalf of the Government and has consequently failed. I am not one of those who contend that high education must be left entirely to the control of the people. the other hand, I willingly concede that high education is one of the paramount duties of the State, and that it must be Government. But I deny most emphatically that it is necessary or desirable to have any provisions in the law which may possibly convert the Universities into mere departments of the State; it is quite possible to stunt the growth of a beautiful tree by constant pruning and too affectionate care.

..... I feel bound to express my deepest regret that what might otherwise have been a beneficent measure should be disfigured by blemishes of a startling character."

The observations were made by Dr. Asutosh in 1904. Nineteen years later in the month of March 1923, he was called upon to deliver for the last time his Convocation Address as Vice-Chancellor of the University. In that address, more than in any other, he gave expression in powerful language to his considered and mature views on the autonomy of the University. If in this speech there occur passages which signify a greater distrust of official control, if the opinions expressed in 1923 are far more advanced than those of 1904. it only discloses that while speaking from out of the unique experience he had during the interval—an experience which no other Indian could claim—he was urging his University and his countrymen with greater vehemence than he did before to make "freedom the very life-blood of education, the condition of its growth, the secret of its success." If we, as the future historian must do when he writes the history of higher education in Bengal, compare the speeches delivered by Dr. Asutosh in the Viceroy's Council in 1904 before he assumed the responsibilities of office in the University with those he delivered in 1922 and 1923 after having been at the head of its administration for a long number of years, our attention is arrested by the marvellously active career of a constructive genius during a period of nearly twenty years. Sir Asutosh at the time of the initiation of the new measure in 1904 supported it where he thought such support was deserving and opposed it where he thought such opposition was in

the interests of the University. He did not "non-co-operate" after the Bill was passed into law. On the other hand, at a critical juncture when the public mind was full of fears, e doubts and suspicion as regards the future of educational development and the effects of the Universities Act on it, he boldly accepted office. The weapons were not his, the end he had in view could not be always consistently obtained with the help of the machinery with which he had to work. however readily drew up at the invitation of Government a body of Regulations based on the main principles of the Act some of which he no doubt opposed in the Council. purpose of this article is not to take stock in detail of the great work which he did in spite of the unfavourable provisions of the law. But this much may be said that he set all doubts and fears at rest: his intense idealism was wedded to a policy of practical statesmanship and his administration saw curtailment of educational facilities but the development of the University on a scale yet unequalled by any sister University in this country. But after all is said and done. the defective constitution against which did Mr. Gokhale and Dr. Asutosh in vain protest is still there—and its defect is all the more patent because of the disappearance of the driving personality of the great educationist. The remedy lies not in attempting to cast aspersions upon the mighty dead but in concentrating our energies and attention to build further on the glorious foundation that has been left to us. to introduce a new era of educational activity, to provide the University with independent administrative bodies on which will be represented different shades of public opinion and educational experience, so that education may spread more and more and improvements introduced from time to time in accordance with the varying needs of the community.1

An Educationist

A portion of the article was published in the "Puja Special" of Forward.

WHAT I AM

I.

If I were I then why this craze "I" to call what I call I? Will it be I when not called I-My sore heart's sleepless cry, I know this mould, I know this mind, I call them I and yet but my. If called or not called what avails? -My sleepless, sore heart's cry, The I that's I—for ever true— If creature of my call, Then caller 'I' transcends true "I" That ever transcends all. That I am joy I'm forced to see-Compulsion 'tis 'gainst pain-If I were not then what can be? The water comes 'fore rain. This vision none can e'er destroy I am Sentience, Being, Joy! And Being's One-there's none to tell. O, Silence is the Holy Spell!

II.

May I not claim myself as mine,
O Love, I'm thine in truth
When I myself am Thine, O Love,
What's mine is Thine for sooth.

My borrowed self, self-tinted all
By Thy will live and die.
O, how ingrate I call then mine
And lordship Thine deny.
All life cries out "Fie! fie!"

III.

The dagger drawn to dig my heart
Unseen is held by Thee.

O, clear the mist that blinds my eye
My love, disguised, to see.

Mohini Mohan Chatterji

Reviews

Report of the Imperial Economic Committee on Marketing and Preparing for Market of Foodstuffs produced within the Empire—Fish. (Cmd-2934. Price 6d. Net).

This is the fifth report of the above Committee which deals with the marketing and preparing for market the products of the sea fisheries. It takes stock of the fishery industry of the Empire and its present problems. The main economic characteristics of the fishing industry are outlined. The absence of the worker's control over the material of this industry, the necessity of a specially trained population for fishing and the propinquity of the country to the fishing grounds are its essential features and any country bordering on the sea cannot hope to develop a vigorous fishing industry if the above features are wanting. But every country blessed with these features should attempt to develop it for it is a key industry. It affords the basis for a mercantile marine and creates a love for the kith and kin scattered over widely-spread portions of the globe. During war-time the trawlers can be used as auxiliaries to the Royal Navy. The fishermen can be rapidly recruited for useful service in the Navy. As these incidental advantages can be secured out of the fishing industry its scientific exploitation must be regarded as an important matter and the abundance of food supplies other than fish ought not to minimise the importance of this industry.

The cardinal facts underlying the fishing industry are the extreme perishability of the fish after capture and the erroneous assumption that like wheat, fish cannot go on increasing for ever. Hence the important problem in the fishing industry is the preservation of fish in sound condition till it reaches the final consumer. Without a cheap and economic solution of this part of the problem mere abundance of fish supplies would not be of much avail to any country. The off-repeated statement is that while intensive cultivation can make available increase of rice or wheat, fish supplies cannot be thus secured. But there are still available virgin areas untapped as yet. A table relating to the value of all sea fish caught in 1925 in the chief countries of the world is given on page 15. Next follows the foreign sources of fish available for the United Ringdom besides her own indigenous catch and the Empire's share in it. The value of fish fish imported into Great Britain in 1925 amounted to £, 25,00,000.

The different kinds of fish and the share of Germanic, Icelandic, Swedish, Italian, Danish and Norwegian vessels are analysed. The pelagic fish, (i.e. herring, mackerel, pilchard and sprat) can be caught by nets on the upper waters of the sea. The white fish (cod. haddock, halibut, hake, plaice, turbot) are those that can be caught by dragging nets on the floor of the sea by trawlers. The consumption of the white fish by the British people is increasing and a large part of the pelagic fish is re-exported from England. This change in consumption may be due to the result of variations in retail prices, changes in methods of street hawking, and changes in fashion and custom. White fish has thus become a regular part of the diet and the English Trawlers Federation has not only realised this immense future before it but has already commenced seriously advertising the "Eat more fish" campaign and attempts are made not only to increase the supply but a definite understanding with the Newfoundland and Labrador Fishery industry has been arrived at to supplant the foreign importations of fish into Great Britain and the whole national market is to be shared by the Home and the Empire fishing industry.

A description of the work of the British fishing fleets, the area of its operations and the foreign imports are related. The possibility of tapping the western side of the North Atlantic is purely a question of length of voyage and time involved in catching fish and sending it in good condition to the market. Even if the existing varieties of fish diminish as a result of overfishing consequent to improvements in fishing industry by the employment of power-driven fishing vessels, new varieties of fish can be found and a taste cultivated for them.

The change in the technique of industry is next noticed. The development of steam trawler and steam drifter during the last sixty years has resulted in increasing the per capita yield of fishermen. Barring the Danes who use smaller motor craft other countries have copied the steam trawler to a greater or lesser degree. The Newfoundland Fishing industry, however, employs the net and the line method in preference to the trawler method which unfortunately proved a commercially non-paying proposition.

Next, the number of people employed in the fishing industry of the United Kingdom, Newfoundland and the Maritime Provinces of Canada is estimated. Figures relative to their catch are given. An idea of the fishing season in the different countries is also conveyed. The economic return of the trawler depends on the way in which the respective duties of the mate and the kipper are performed. A good kipper must be aided

by a good mate to increase the productiveness of the industry. The main feature of the trawler industry is the feasibility of introducing centralised management so as to secure the well-known economies of large-scale production. The boat or sailing fishery industry defeats this scope for combination and is consequently less organised than the former.

The after-war depression attending on the fishing industry is mainly due to increasing foreign competition and difficulties in ship-building. Many workers are consequently forced to leave the Maritime Provinces of Canada and become the citizens of the United States of America to find ready employment in the American fishing fleets.

Coming to the present marketing organisation (i.e.) the wholesalers at the British ports are in constant touch with the interior retailers and though it is exposed to sale at the ports, at the wholesaler's shop and the retail shop slab, the fish is conveyed rapidly and in a good condition (i.e.) iced at least two times before it reaches the final consumer. It is so quickly conveyed that it is available for sale on the very day it is caught. Though cheap and effective transport by railway trucks is secured the supply of closed, ventilated and insulated vans can be improved still further. The filleting of fish at ports, wrapping them in clean oil-paper and packing them in ice is the present custom in Canada. the Newfoundland and the United States of America. Two advantages can be realised out of this form of organisation of trade. Firstly, the fish does not come into contact with ice and, secondly, economic handling of fish supplies would result. The use of bye-products can be secured by this method of organisation. That it is the interest of England to develop this method of organisation and that it would be finally accepted goes without saying. Provided the quality of fish is ensured there is nothing to hinder this type of trading organisation in the fishing industry. Improvements in methods of preserving fish on shipboard would ensure its quality.

The main difficulty in present-day industry is the inability to steady the wholesale prices in spite of possessing a single national market for it where the producers, wholesalers and the retailers are in perfect and constant touch with one another. This inability arises out of fluctuations in supply. It might be argued that it is, however, possible to average out these large fluctuations. But there is no effective means of regulating the arrival of ships at different ports and none can foretell in advance the quality of the fish. To add to these difficulties fish is a perishable commodity and the owners are always eager to sell at once. On account of these special features wholesale prices are beyond the control of the

organisers of the fishing industry in spite of possessing a well organised single national market. A table showing the percentage variations of the eight different kinds of fish at the four chief fishing ports of Great Britain is given on page 38. It amply corroborates the theoretical conclusions drawn above as a study of the features of demand and supply for fish. The variability of wholesale prices undoubtedly leads to a high level of retail prices. Hence the future of the industry depends on (1) the securing of a uniform supply by eliminating alternate gluts and shortages thus (2) imparting greater stability to wholesale prices which would (3) have the desired effect of reducing the retail prices of an important source of food supply. So the all-important thing on which the future destiny of the industry depends is the improving of the storage A uniform supply coupled with better business organisation which secures the gains out of the utilisation of bye-products reduces transport charges and distributes the overhead charges over a large volume of trade, is the main desideratum.

Improvements in the scientific knowledge in the departments of marine biology, hydrography and the arts of fishing would tend to improve the state of fresh fish available for consumption. The correlation of the work of the four marine State-aided laboratories at Plymouth, Millport, Port Erin and Cullcoats together with the scientific research work of the staff attached to the Fisheries Board of the Ministry of Agriculture and Fisheries and the scientific associations maintained by Canada and Newfoundland through the Permanent International Council for the Exploration of the Sea and the publication of the results is certainly contributing much towards a sound knowledge of the Seas and the conditions governing the life and migration of the fish. The means of catching the fish are also improved to a great extent by perfecting the different kinds of nets employed in catching fish.

Equal progress in the research problems relating to the preservation of fish is also made. Quick freezing with the use of brine would permit the disintegration of the tissues of the fish. Biochemical and physical research must solve the problem of preserving fish at low temperature. It is the task of the engineer to adapt it to commercial conditions. Any success in this line would stabilise the supply of fish, better the quality of it, and cheapen it at the same time. Thus the future evolution in the industry which can be forecasted runs on the following lines. A "factory ship" which immediately attends to the preservation of fish as the supplies are brought to it by the smaller vessels or grafts, and a carrying yearsel to the port are essential. Such specialisation of processes leads to

the improvement in the quality of the product, avoiding of waste material and securing oil out of them. Fish meal can also be prepared immediately out of fish waste. If fish is to be sold in distant markets the utilisation of the bye-products is essential. Education of the British housewife to prefer the filleted fish is also necessary. Unless a thorough reorganisation of the British and British North American Fishing industry is made the stabilising of prices, bettering the quality and cheapening of the supplies of fish would not be secured.

Means for effective co-operation between the two parts of the fishing industry in the matter of research are outlined. Two well-equipped research stations, one on the Atlantic side and the other in Great-Britain are necessary. The joint effort in cheapening the cost of research is to be approved and as soon as the problems of preservation of fish are solved the tropical countries and the Southern fisheries can also adopt these processes. Better organisation of the industry should proceed concurrently with any efforts made on the research side.

Suggestions for the improvement of the export trade of the "pelagic fish" of the Irish Free State industry are elaborated on pages 51 to 58. The main idea is to improve the curing process. The cod liver oil contains vitamins and improvement in this line consists in the refining of the oil, eliminating its bad odour, and improving its taste. As fish meal, which is a valuable bye-product arising out of the waste of white fish, is a good feeding stuff for pigs, cows, poultry, and young stock, an attempt to economically develop this product must be made. The live-stock industry would be improved to a great extent by the securing of fish meal which contains proper limit of oil and salt.

Australia can develop the fishing industry as the coastal cities afford a good market for fish. South Africa has already developed the fishery industry and is extending the market for its fish. So far as tropical countries are concerned the previous attempts in this line to develop a fishing industry proved abortive. No fishing industry using power vessels has been developed. But the type of vessel necessary for economical working in the tropical fishery areas has yet to be discovered after continuous experimenting over several years. The transportation and preservation problem are no less important in the tropical regions. Both fish meal and fish fertiliser are of great value and their importance should be realised by the tropical countries. The Malayan Government has access to the fruitful fishery grounds and has at the same time ready access to the markets. It ought to carry on research work which would ultimately be of great value to all tropical countries. These are the

important means by which a paying fishing industry can be developed in the tropical regions.

It would be of some interest to our readers to note that the Indian members of the Committee were Sir A. C. Chatterjee and M. M. Gubbay. The Secretary of the Committee is another Indian Official Mr. D. T. Chadwik. Reference to Indian experiments in the development of a fishing industry are made on pages, 63, 72-73, and 78. Five useful appendices and a map of the chief fisheries of the world are appended to the report. Another unique feature of the report is the unanimous nature of the recommendations made by the members. This should heighten the value of the recommendations offered. if one compares and contrasts the thoroughness with which this Committee has tackled the industry with the feeble and misguided efforts made in India by some of the provinces, namely Bengal, Bombay and Madras, to develop this industry, the hollowness of the pretensions of the heaven-born all-India services under whose direction the efforts were made would be apparent. Again the expenses of the Committee in connection with the preparation of this Report amount to only £475 and the cost of printing and publishing the Report is £152-10s.-6d.

B. RAMCHANDRA RAU

Ourselves

KAMALA LECTURES.

Mahamahopadhyaya Dr. Ganganath Jha, M.A., D.Litt., Vice-Chancellor, University of Allahabad, who was appointed Kamala Lecturer for 1926 sometime ago, will commence delivering his lectures from the 12th December, 1927.

THE INDIAN PHILOSOPHICAL CONGRESS.

The following gentlemen have been deputed by the Council of Post-Graduate Teaching in Arts to represent this University at the next Indian Philosophical Congress to be held in Bombay in the third week of December, 1927:

Professor S. Radhakrishnan, M.A. Professor Hiralal Haldar, M.A., Ph.D. N. N. Sen Gupta, Esq., M.A., Ph.D.

Professor Radhakrishnan has been elected President of the ensuing Congress.

SREEGOPAL BASUMALLIK FELLOW.

Mr. Pramathanath Mukhopadhyaya, M.A., has been appointed Sreegopal Basumallik Fellow in Vedanta Philosophy for the year 1927.

LORD HALDANE ON Neo-Hegelianism.

We congratulate Dr. Hiralal Haldar on the publication of his work on *Neo-Hegelianism*. The book has been published by Messrs. Heath Cranton, Ltd., 6 Fleet Lane, London, and its price is 25 Shillings net. Lord Haldane has reviewed the book in the following glowing terms:

"This book is a very valuable contribution to the history of thought in the New Century. It is not only admirable in point of style and accuracy of statement, it also gives what was very much wanted, a reasoned account of the idealistic position in its most modern form, distinguishing the standpoints of such writers on philosophy as Green, Bradley and Bosanquet, among others. Hitherto there has been no such account of systems that vary in detail but are at one in their acceptance of and insistence on fundamental principles. The book thus supplies a want which has been apparent to students of modern philosophy and I hope that Professor Haldar's treatment of it will find a large recognition. He has done his work as an Indian Professor, but with a knowledge that is second to that of no other Western study of the problem."

University of Calcutta

Latest Publications

Chronology of Ancient India (From the Times of the Rig-Vedic King Divodāsa to Chandragupta Maurya, with Glimpses into the Political History of the Period), by Sita Nath Pradhan, M.Sc., Ph.D., Brihaspati. Royal 8vo. pp. 291+30. Rs. 6.

In this interesting and erudite thesis on the Chronology and Political History of Vedic and Buddhist India enormous masses of evidence derived from Vedic, Epic, Puranic, Buddhistic, Jain, Epigraphic and other sources have been collated, compared and contrasted and Ancient Indian Chronology built up. Having been completed in 1921, it is a pioneer work on its own way and will be of invaluable assistance and absorbing interest to all students of Ancient Indian History.

- Yedanta Paribhasa of Dharmarajadhwarindra with commentary Paribhashaprakashika by Mahamahopadhyay Anantakrishna Sastri, Lecturer in Vedanta and Mimarsa, Calcutta University, with a Foreword by Prof. S. Radhakrishnan, M.A., Royal Svo. pp. 462.
- Hinayana and Mahayana and Origin of Mahayana Buddhism, by R. Kimura. Royal 8vo. pp. 203. Rs. 2-4.
- Rights and Duties of the Indian Citizen (Kamela Lectures 1926), by the Right Hon'ble Mr. V. S. Srinivasa Sastri, P.C. Demy 8vo. pp. 116. Rs. 1-8.
- Journal of Science, Yol. VIII, Royal 8vo. pp. 207. Rs. 9.
 - 1. Synthesis of Boranilide and its Derivatives, by Tarinicharan Chaudhuri, M.A., Ph.D., A.I.C.

2. The Scattering of Light by Solid Surfaces, by L. A. Ramdas, M.A.

3. Purana Group of the Himalayas, by Hemchandra Das-

gupta, M.A., F.G.S.

- 4. Commentationes Algologicæ: IV. Compsopogon Lividus (Hooker), De Toni, by P. Brühl, D.Sc., and Kalipada Biswas,
- 5. Commentationes, Phytomorphologicæ et Phytophysiologicæ: IV. Eichhornia Studies: (On the Production of Ripe Seeds by Artificial Pollination of Eichhornia Speciosa, by P. Brühl, D.Sc., and Jatis Sengupta, M.Sc.

6. Palæontological Notes on the Nummulitic Rocks of Cherra-Punji, Khasi Hills, Assam, by Hemchandra Dasgupta,

M.A., F.G.S.

- Notes on Pentatrichomonas Canis auri N. Sp., by G. C. Chatterjee, M.B., Harendranath Roy, M.Sc., and A. N. Maitra,
- B.Sc., M.B.

 8. A Note on the Method of Multiplication of Trichomonad

 Consider in Artificial Culture, by G. C. Chatterjee, M.B.
- 9. Notes on the Occurrence of Ovaries in the Worker of Myrmicaria brunnea Saunders, by Durgadas Mukherjee, M.Sc.
- 10. Flora of the Salt-Lakes, Calcutta, by Kalipada Biswas, M.A.
- 11. Aquatic Vegetation of Bengal in relation to Supply

of Oxygen to the Water, by Kalipada Biswas, M.A.

12. Aeroplane Motion, its Theory and Application, by N. K.

Bose, M.Sc., Ph.D. (Gottingen).

- 13. On the Occurrence of Limnocharis Flava Linn., in Burma by P. Brühl, D.Sc., and Satvaranjan Sen, M.Sc.
 - 14. Indian Slime Fungi (Myxomycetes or Mycetozoa), by P.

Brühl, D.Sc., and Jatis Sengupta, M.Sc.

- 15. Notes on the Geology of the Island of Bombay, by Hemchandra Dasgupta, M.A., F.G.S.
- Current International Co-operation, by Manley O. Hudson. D/Crown 16mo. pp. 156. Rs. 2.
- Sir Asutosh Mookerjee Silver Jubilee Commemoration Yolumes-Vol. III (Orientalia), Part III, Royal 8vo. Rs. 11-4. pp. 546.
- Indian Railway Economics, Part I, (Revised Edition), by Mr. S. C. Ghose. Demy 8vo. pp. 128. Rs. 2.
- Proceedings of the First Philosophical Congress, 1925, Royal 8vo. pp. 452.

BOOKS IN THE PRESS IN NOVEMBER, 1927

- 1. Notes on Manu Smriti, by Mahamahopadhyay Dr. Ganganath Jha, M.A., D.Litt.
- 2. History of Indian Medicine, Part III, by Girindranath Mookerjee, B.A., M.D.
- 8 Banimandir (in Bengali), by Sasankamohan Sen, B.L.
- 4. University Calendar for 1928, Part I.
- 5. Descriptive Catalogue of Old Bengali Manuscripts in the University Library, Vols. II and III, edited by Manindramohan Bose, M.A.
- 6. History of Indian Literature, by Prof. M. Winternitz, translated into English by Mrs. S. Ketkar.
- 7. Newness of Life (Stephanos Nirmalendu Lectures), by Prof. M. A. Canney.
- 8. Desinamamala, edited by Muralydhar Banerjee, M.A.
- 9. Spirit of French Civil Law (Tagore Law Lectures, 1923-1924), by Prof. Henry Solus.
- 10. Elements of the Science of Language, by Prof. I. J. S. Taraporewala, B.A., Ph.D.
- 11. Siddhanta-Sekhara, by Babua Misra, Jyotishacharyya.
- 12. Visuddhimaggo, by Prabodhchandra Das, M.A.
- 13. Asamiya Sahityer Chaneki, Vol. I, Part I, edited by H. C. Goswami, B.A.
- 14. Rural India, by Nagendranath Gangulee, Ph.D. (London).
- 15. Harilila (in Bengali), edited by Rai Bahadur Dineschandra Sen, B.A., D.Litt., and Basantaranjan Ray, Vidwatvallabh.
- 16. Indian Political and Cultural Influence in Cambodia, by B. R. Chatterjee, M.A.
- 17. Journal of the Department of Science, Vol. IX.
- 18. Journal of the Department of Letters, Vol. XVII.
- 19. Surya-Siddhanta.
- 20. Yoga Philosophy in relation to other systems of Indian Thought; by S. N. Dasgupta, M.A., Ph.D.
- 21. Eastern Bengal Ballads, Vol. III, Part I, edited by Rai Bahadur D. C. Sen, D.Litt.

BOOKS IN THE PRESS

- 22. Plants and Plant-Life, by Girijaprasanna Majumdar M.A.
- 28. Vishnudharmottaram, by Stella Kramrisch, Ph.D.
- 24. Notes on Kavikankan Chandi, Part II, by Charu Bandyopadhyay, B.A.
- 25. Panini, by late Rajanikanta Gupta.
- 26. University Question Papers for 1921.
- 27. University Question Papers for 1922.
- 28. University Question Papers for 1923.
- 29. University Question Papers for 1924.

List of Publications

(Continued from previous issue.)

I. LANGUAGE AND LITERATURE

8. OTHER INDIAN VERNACULARS

Typical Selections from Oriya Literature. Edited by Bijaychandra Mazumdar. Vol. I. Royal 8vo. pp. 303. Rs. 11-4.

Do. Vol. II. Royal 8vo. pp. 220. Rs. 11-4.

Do. Vol. III. Royal 8vo. pp. 519. Rs. 11-4. Rs. 22-8 for the **full set** of 3 Vols.

Asamiya Sahityar Chaneki (Typical Selections from the Assamese Literature), compiled by Pandit Hemchandhra Goswami, M.R.A.S., F.R.A.S., of Assam Civil Service and Editor of "Hema-Kosha."

Selections from Hindi Literature, compiled by Lala Sita Ram, B.A., Sahityaratna.

Book I—Bardio Poetry—Contains extracts from the Prithiraj Rasau of Chand Bardai, the Bisaldev Rasau of Nalha, the Birsingh-Charit of Kesav Das, the Sivaraj Bhushana and the Siva Baoni of Bhushan, the Chhatra Prakash of Gore Lal, the Raj Bilas of Man, the Jang Nama of Murlidhar, the Hamir Rasau of Jodh Raj, the Sujan Charit of Sudan, and the Himmat Bahadur Birdavali of Padmakar. Royal 8vo. pp. 851. Rs. 6-0.

Book II—The Krishna Cult—In this book the compiler has given extracts from the writings of the followers of Vallabhacharya including Sur Das and others commonly known as Asht Chhap, Nabhaji Gokul Nath, the oldest prose writer, and Dhruva Das. These writers have described loves of Krishna and Radha in a religious spirit and have nothing in common with ordinary writers of erotic Poetry. No other book has yet been published in Hindi in which the curious reader may find the hymns of each of the Asht Chhap with notices of the authors. Royal 8vo. pp. 363. Rs. 6-0.

Book III—Taisi Das—whom Sir George Grierson calls the brightest star in the firmament of Indian Mediæval poetry stands unapproached and unapproachable in his niche in the Temple of Fame. His works in extract have been set up in a book of their own with an introduction containing a short life of the poet and an account of his various works. Royal 8vo. pp. 291.

Rs. 6-0.

Book IV—With a learned foreword by Mahamahopadhyaya Ganganath Jha, M.A., D.Litt., Vice-Chancellor, University of Allahabad. The Saints.—The extracts given in this book are from the teachings of nineteen great saints including Swami Ramanand, Kabir, Guru Nanak, Guru Teg Bahadur, Guru Govind Singh and Mira Bai. Royal 8vo. pp. 390. Rs. 6-0.

Book V—Arts Poetica—This book deals with the Science of poetry and the extracts describe the various emotions and passions which constitute the essence of poetical compositions, to which Hindu writers have added fanciful classifications of women, technically called the Nayika-bhed. Royal 8vo. pp. 275. Rs. 3.

Book VI, Part I—Other Poets (with a brief history of the Hindi Language)—In this book extracts are given from the writings of Vidyapati, Malik Mohammad Jaisi, Kesava Das, Rahim, Raskhan, Mubarak, Usman, Senapati, Bihari Lal, Bhupati, and Sabal Singh Chauhan. Royal 8vo. pp. 324. Rs. 3.

Book VI, Part II—Other Poets—Begins with a History of the Hinds Literature with an appendix containing notes on the Awadhi, the Braja Bhasha, the Punjabi, the Maithili, the Marwari, the Jain Hindi, and the Urdu Literatures and gives extracts from the writings of 19 well-known Hindi writers ending with the great Haris Chandra of Benares. Royal 8vo. pp. 406. Rs. 6. Complete set (Books I-YI) Rs. 30.

Selections from Classical Gujarati Literature, Vol. I, by I. J. S. Taraporewala, B.A., Ph.D., Professor of Comparative Philology and Lecturer in Gujarati in the Calcutta University. Royal 8vo. pp. 464. Rs. 5-0.

4. CLASSICAL TEXTS

(Prescribed by the University for different examinations.)

- * Matriculation Arabic Selections, complied by Maulavi Muhammad Irfan, M.A. Royal 8vo. pp. 80. Rs. 1-12.
- * Matriculation Persian Selections, compiled by Agha Muhammad Kazim Shirazi. Royal 8vo. pp. 97. Rs. 1-12.
- * Matriculation Selections in Classical Tibetan. Royal 8vo. pp. 100. Rs. 2-0.
- * Matriculation Sanskrit Selections, I (Prose). Crown 8vo. pp. 108. Re. 1-0.
- * Do. II (Poetry). Crown 8vo. pp. 221. As. 10.
- * I.A. Arabic Selections, compiled by Maulavi Muhammad Irfan, M.A. Royal 8vo. pp. 98. Rs. 2-0.
- * I.A. Persian Selections, compiled by Agha Muhammad Kazim Shirazi. Royal 8vo. pp. 145. Rs. 2-0.

- * I.A. Sanskrit Selections. Crown 8vo. pp. 195. Rs. 2-0.
- * B.A. Honours Arabic Selections. Royal 8vo. pp. 144. Rs. 2-8.
- * B.A. Pass Arabic Course, I (old Selections). Royal 8vo. pp. 88. Rs. 1-8.
- * Do. II. Royal 8vo. pp. 80. Rs. 1-8.
- * B.A. Pass Arabic Selections, compiled by Maulavi Md. Irfan, M.A. Royal Svo. pp. 75. Rs. 1-8.
- * B.A. Honours Persian Course. Royal 8vo. pp. 314. Rs. 2-8.
- * B.A. Pass Persian Course (old Selections). Royal 8vo. pp. 157. Rs. 1-12.
- * B.A. Pass Persian Selections, compiled by Agha Muhammad Kazim Shirazi. Royal 8vo. pp. 245. Rs. 2-0.
- * M.A. Persian Course. Demy 8vo. pp. 225. Rs. 2-8.
- Gowhar-i-Murad, edited by Aga Mahammad Kazim Shirazi Royal 8vo. pp. 120. Rs. 3.
- Diwan-i-Nasir-i-Khusraw, edited by Aga Mahammad Kazim Shirazi. Royal 8vo. pp. 77. Rs. 2.

8. TIBETAN

She-rab-dong-bu, by Major W. L. Campbell, C.I.E. Royal 8vo. pp. 137. Rs. 6-12.

6. ENGLISH TEXTS, &c.

- * Selections from the Bible, Part I. Crown 8vo. pp. 498. Rs. 2-8.
- * Do. Part III. Crown 8vo. pp. 489. Rs. 2-8.
- *Shakespeare's Comedy of Errors, edited by Rev. J. C. Scrimgeour, M.A. Crown 8vo. pp. 187. Rs. 1-4.
- Ben Jonson's Volpone or the Fox. Re. 1-0.

 A Syllabus of Poetics, by Dr. H. Stephen, (Second Edition, Revised and Enlarged). Demy 8vo. pp. 300. Rs. 3. [Rs. 2 for Post-Graduate Students of the Calcutta University].

- On the Poetry of Matthew Arnold, Robert Browning and Rabindranath Tagore, by A. C. Aikat, M.A. Royal 8vo. pp. 346. Rs. 7-8.
- Othello, the Moor of Yenice. Edited by Rev. J. C. Scrimgeour, M.A. Crown 8vo. pp. 281. Rs. 2-0.
- * Lahiri's Select Poems. Crown 8vo. pp. 205. Rs. 1-8.
- * Select Readings from E. Hish Prose. Crown 8vo. pp. 224. Rs. 1-8.
- * Selections from W. Irving. Crown 8vo. pp. 331. Rs. 1-12.
- * Intermediate Prose Selections. Crown 8vo. pp. 412. Rs. 3-0.
- * Intermediate Poetical Selections. Crown 8vo. pp. 360.
 Rs. 3-0.

VII. MATHEMATICS

- † Matrices and Determinoids, Vol. I (Readership Lectures delivered at the Calcutta University), by C. E. Cullis, M.A., Ph.D., D.Sc. Sup. Royal 8vo. pp. 442. English price 24s. net.
- † Matrices and Determinoids, Vol. II. Sup. Royal 8vo. pp. 573. English Price 42s. net.
- † Matrices and Determinoids, Vol. III, Part I, Royal 8vo. pp. xx+682. English price £3 3s. net. Indian price Rs. 45.
- † Chapters on Algebra (being the First Three Chapters of Matrices and Determinoids, Vol. III), by C. E. Cullis, M.A., Ph.D., D.Sc. Sup. Royal 8vo. pp. 191. Rs. 11-4.
- † Functions of Two Variables, by A. R. Forsyth, F.R.S. Sup. Royal 8vo. pp. 300. Rs. 11-4.
- Analytical Geometry of Hyper-spaces, Part I (Premchand Roychand Studentship thesis, 1954), by Surendramohan Gangopadhyay, D.Sc. Demy 8vo. pp. 93. Rs. 1-14.
- Do. Part II. Demy 8vo. pp. 121. Rs. 3-12.

[†] The right of publication of this book is held by and copies may be had of the - Cambridge University Press, Fetter Lane, London, E.C. 4.

- Theory of Higher Plane Curves, Vol. I, by Surendramohan Gangopadhyay, D.Sc. Second Edition (thoroughly revised and enlarged). Demy 8vo. pp. 413. Rs. 6-8.
- Do. Vol. II. Second Edition, thoroughly revised and enlarged. Demy 8vo. pp. 408. Rs. 4-8.

This Volume deals with the application of the theory in studying properties of cubic and quartic curves.

- Parametric Co-efficient (Griffith Memorial Prize, 1910), by Syamadas Mukhopadhyay, M.A., Ph.D. Demy 8vo. pp. 31. Rs. 3-0.
- Yector Calculus (Griffith Memorial Prize, 1917), by Durgaprasanna Bhattacharyya, M.A. Demy 8vo. pp. 91. Rs. 3-0.
- Solutions of Differential Equations (Premchand Roychand Studentship thesis, 1896), by Jnansaran Chakravarti, M.A. Demy 8vo. pp. 54. Rs. 3-12.
- Reciprocal Polars of Conic Sections (Premchand Roychand Studentship thesis, 1900), by Krishnaprasad De, M.A. Demy 8vo. pp. 66. Rs. 3-0.
- Khandakhadyakam, edited by Pandit Babua Misra, Jyotishacharyya, Demy 8vo. pp. 217. Rs. 2-0.

VIII. SCIENCE

1. PHYSICS AND CHEMISTRY

- Progress of Physics, by A. Schüster, D.Sc. Demy 8vo. pp. 174. Rs. 3-15.
- Do. (for Registered Graduates). Rs. 2-4.
- Theory of Electro-Magnetism, by G. J. Walker, M.A., D.Sc., F.R.S. Demy 8vo. pp. 60. Rs. 3-6.
- Do. (for Registered Graduates). Rs. 1-8.

The book puts some of the most important developments of electro-magnetic theory into a connected and convenient form.

* Optical Theories, by D. N. Mallik, B.A., Sc.D. Demy 8vo. pp. 191. Rs. 8-1.

[•] The right of publication of this book is held by the Cambridge University Press.

- The Principle of Relativity, by M. N. Saha, D.Sc., and S. N. Bose, M.Sc. (with a Historical introduction by P. C. Mahalanobis). Demy 8vo. pp. 248. Rs. 4-8.
- Molecular Diffraction of Light, by C. V. Raman, M.A., D.Sc., F.R.S. Demy 8vo. pp. 113. Rs. 3-0.
- Organic Theo-compounds, by Sir P. C. Ray, Kt., C.I.E., D.Sc., Ph.D. Royal 8vo. pp. 74. Rs. 1-8.

BOTANY

Indian Medicinal Plants, by Lieut.-Col. K. R. Kirtikar, F.L.S., I.M.S., and Major B. D. Basu, I.M.S. (Retd.) Nicely bound in 2 Vols. Plates kept in nice cardboard cases. Rs. 275-0.

8. MEDICINE AND SURGERY

- Chemistry and Toxicology of Nerium Odorum with a description of a newly separated Principle. (Coate's Memorial Prize, 1901), by Rai Bahadur Chunilal Basu, M.B., F.C.S. Demy 8vo. pp. 32. Rs. 3-12.
- Terminalia Arjuna (Coate's Memorial Prize, 1908), by Lalmohan Ghoshal, L.M.S. Rs. 3-12.
- Diabetes, by Indumadhab Mallik, M.A., M.D., B.L. Demy 8vo. pp. 43. Rs. 3-12.
- Studies on Hæmolysis (1st edition), by U. N. Brahmachari, M.A., M.D., Ph.D. Demy 8vo. pp. 71. Rs. 4-8.
- Do. (2nd edition). Rs. 4-8.
- Surgical Instruments of the Hindus, Parts I, Demy 8vo. pp. 476, and II, Demy 8vo. pp. 172, by Girindranath Mukhopadhyay, Vishagacharyya, B.A., M.D., F.A.S.B. (Griffith Memorial Prize, 1909). Rs. 9-0.
- **Do.** (For Members of the Senate). Rs. 6-0.
- History of Indian Medicine, by the same author. With a foreword by Sir Asutosh Mookerjee, Kt., C.S.I., etc. (Griffith Prize Essay for 1911).
 - Vol. I, Demy 8vo. pp. 403. Rs. 6.
- Do. Vol. II, Demy 8vo. pp. 433. Rs. 6.

[†] The sale of the book is restricted within India.

Bhela Samhita (same as Vol. VI of the Journal of the Department of Letters). Royal 8vo. pp. 286. Rs. 9.

4. ANTHROPOLOGY

- Lectures on Ethnography, by Rao Bahadur L. K. Anantakrishna Iyer. Royal 8vo. pp. 302. Rs. 6-0.
- First Outlines of a Systematic Anthropology of Asia, by V. Giuffrida-Ruggeri (translated from Italian by Haranchandra Chakladar, M.A.). Royal 8vo. pp. 110. Rs. 1-8.
- Hos of Seraikella, Part I., by Anathnath Chatterjee, M.B. B.S., and Tarakchandra Das, M.A., Royal 8vo., pp. 94. (Profusely illustrated). Rs. 2.
- The Aborigines of the Highlands of Central India, by B. C. Mazumdar, B.L. Demy 8vo. pp. 90. Rs. 1-8.

IX. SIR ASUTOSH MOOKERJEE SILVER JUBILEE COMMEMORATION VOLUMES

Yolume I, Rs. 11-4.

Volume II, Science. Rs. 11-4.

Volume III, Orientalia, Part I. Rs. 11-4.

Volume III, Orientalia, Part II. Rs. 11-4.

Yolume III, Orientalia, Part III, Rs. 11-4-0.

X. SERIALS, PERIODICALS, AND ANNALS

University Extension Lectures (1915-1916) (First Series). Demy 8vo. pp. 162. As. 12.

Convocation Addresses (complete set). Rs. 10-0.

Part I, 1858-1879. Demy 8vo. pp. 408.

Part II, 1880-1898. Demy 8vo. pp. 442.

Part III, 1899-1906. Demy 8vo. pp. 222.

Part IV, 1907-1914. Demy 8vo. pp. 360.

Part V, 1915-1923. Demy 8vo. pp. 545.

Each Part Rs. 5.

- Journal of the Department of Letters. —Sixteen volumes have been published. The Price is Rs. 9 each.
- Journal of the Department of Science.—Eight volumes have been published. The Price is Rs. 9 each.
- Calcutta Review (Estd. 1844; Third Series 1921).
- University Calendar for the year 1927. Containing (1) list of members constituting the Senate, Syndicate, Faculties, Post-Graduate Councils, Boards of Examiners, etc., (2) Full information regarding Endowments for Professorships, Lecturerships, Readerships, Fellowships, Research studentships, Scholarships, Prizes and Medals, (3) Descriptions of affiliated institutions, and lists of recognised schools, (4) Lists of text-books for the years 1927 and 1928, (5) Rules for Examinations, (6) List of publications of the Calcutta University, etc., etc., Demy 8vo. pp. 1024. Rs. 7-8.
- **Do.** for the year 1926. Demy 8vo. pp. 901. Rs. 7-8.
- Do. for the years 1924 and 1925. Demy 8vo. pp. 996. Rs. 7-8.
- Do. for the years 1922 and 1923. Demy 8vo. pp. 861. Rs. 7-8.
- Do. for the years 1920 and 1921. Demy 8vo. pp. 872. Rs. 7-8.
- Vol. I (containing the list of Graduates—M.A.'s 1865-1917; B.A. Hons. in order of merit, 1885-1917; B.A.'s in alphabetical order, 1858-1918, etc.). Demy 8vo. pp. 1108. Rs. 7-8.
- University Calendar for the years 1918 and 1919, Part II, Yol. II (containing the list of Graduates in Arts, Science, Law, Medicine, and Engineering, 1918 and 1919;

- Under-graduates, 1917 to 1919). Demy 8vo. pp. 1048. Rs. 7-8.
- Do. Part II—Supplement for 1920 and 1921 (containing list of Graduates in Arts, Science, Law, Medicine and Engineering in 1920 and 1921). Demy 8vo. pp. 975. Rs. 7-8.
- Do. Supplement for 1922 and 1923 (containing the list of Graduates in Arts, Science, Law, Medicine and Engineering in 1922 and 1923). Demy 8vo. pp 1017. Rs. 7-8.
- University Calendar for the year 1924, Part II, Yol. I (containing list of Graduates in Arts, Science, Teaching, Law, Medicine, and Engineering up to the year 1923).

 -Demy 8vo. pp. 1612. Rs. 10.
- Do. for the year 1924, Part II, Vol. II (containing list of Graduates in Arts, Science, Teaching, Law, Medicine, and Engineering in 1924, and list of Under-graduates, 1924). Demy 8vo. pp. 528. Rs. 5-0.
- University Regulations, (Revised edition, with amendments up to April, 1927). (Containing the Acts and the Regulations regarding (1) Constitution of the Senate, Syndicate, Faculties, Boards, etc., (2) Election of Fellows, (3) Affiliation of Colleges and Schools, (4) Admission of students to Schools and Colleges, (5) Admission of candidates to all Examinations and Degrees, (6) Syllabuses of studies for Examinations, etc., etc.). Demy 8vo. pp. 546. Rs. 3-12.
- University Question Papers for the Examinations in Arts, Science, Law, Teaching, Medicine, Engineering, etc., for the years 1917, 1918, 1919 and 1920, bound in four volumes. Each Volume Rs. 4-8.
- Calcutta University Proceedings of the Councils of Post-Graduate Teaching, 1917. Rs. 4-8.
- Calcutta University Proceedings of the Councils of Post-Graduate Teaching, 1918-1923. For each year Rs. 3-0.

 Do. Do 1924. Rs. 3-0.

Catalogue of Books in the University Library:

- I. English Literature. Rs. 1-8.
- II. History (including Biography, Geography and Travels). Royal 8vo. pp. 212. Rs. 1-8.
- III. Social Science, Part 1. As. 4.
- IV. Descriptive Catalogue of Bengali Manuscripts Vol. I. Edited by Basantaranjan Ray, Vidvadvallabh and Basantakumar Chatterjee, M.A., Demy 4to. pp. 252. Rs. 3.

Contains short description of 286 of the large collection of Bengali MSS, in the Calcutta University Library.

V. Pischel Collections. Re. 1-0.

Agents for sale of University Publications-

For sale outside India-

MESSRS. LONGMANS, GREEN & Co., LTD.

London House—39, Paternoster Row, London, E.C. 4. American House—55, Fifth Avenue, New York.

For sale in India-

- Calcutta-(1) Messrs. R. Cambray & Co., 15, College Square.
 - (2) ,, Chuckervertty, Chatterjee & Co., Ltd.,

15, College Square.

(3) ,, The Kamala Book Depot, Ltd.,

15, College Square.

- (4) ,, The Book Company, Ltd., 4/4A, College Square.
- (5) ,, Sen, Bros. & Co.,

15, College Square.

(6) ,, Thacker, Spink & Ci,

3, Esplanade, East.

(7) ,, W. Newman & Co., Ltd.,

3, Old Court House Street.

Bombay-Messrs. D. B. Taraporevala, Sons & Co.,

190, HORNBY ROAD, FORT.

Poona-Messrs. The Oriental Book-supplying Agency,

15, SHUKRAWAR.

Madras-(1) MESSRS. B. G. PAUL & Co.,

321, THAMBU CHETTY STREET, MADRAS.

(2) MESSRS. R. CAMBRAY & Co.,

336, THAMBU CHETTY STREET.

Delhi-Messrs. The Oxford Book & Stationery Co.,

KASHMIR GATE.

Lahore—The Proprietors, The Panjab Sanskrit Book Depot, Saidmitha Street.

Lucknow—The Proprietôr, Ganga Pustakmala Karyyalaya, 29-80, Aminabad Park.

(Special Agents for Sale of Hindi Selections).

FOR

BACK NUMBERS

OF THE

THIRD SERIES

OF

THE CALCUTTA REVIEW

Please write to the Manager, Calcutta Review,

Senate House, Calcutta.

A FEW COMPLETE SETS ARE STILL AVAILABLE.

THE CALCUTTA REVIEW

[Estd. 1844; Third Series 1921]

FIRST AND SECOND SERIES

Most of the volumes are out of print and very scarce. A few copies are available for completing sets. Prices may be ascertained on application to

The Manager, Calcutta Review,

Senate House, Calcutta.

IF YOU ARE GOING TO START A LABORATORY

ASK US
TO COMPLETELY EQUIP SAME

OUR STOCK IS THE LARGEST AND MOST VARIED IN INDIA

We can Equip a Complete B.Sc. or Two I.Sc. Laboratories by supplies ex stock

Everything done under expert supervision of Mr. P. C. Chattopadhyay, M.A., F.C.S. (Lond.), etc.

ON Account of Lower Cost, There is Considerable Reduction in Prices in All Lines

Scientific Supplies (Bengal) Co.,

29-36, COLLEGE STREET MARKET, "SCIENCE BLOCK," CALCUTTA.

Telegrams: Bitisynd, Calcutta.

Telephone: Burrabazar, 524.

ASSESSMENT AND A STATE OF THE S

or a transportation of the second of the



を見ること Challer i,

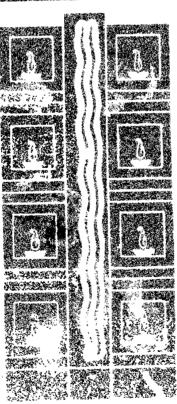
大いないないなるようだ

変われ キャンカナル 国際 ハスやな ボンファブ はいか 労働権がた

17.00

安日在福書時間 河南海南西的東京衛門原門

一年 大学 かんかん かんない



THE CALCUTTA REVIEW

ESTD. 1844]

[THIRD SERIES: 1921

Honorary Editor-in-Chief: JAYGOPAL BANERJEE, M.A.

Supported by a strong BOARD OF CONSULTING EDITORS.

Honorary Secretary: P. N. BANERJEE, M.A., B.L.

Matters for publication are to be sent to the Hony. Secretary, Calcutta Review, Senate House, Calcutta.

Our Agents for-

UDON—Messrs. Kegan Paul, Trench, Trubner & Co., Ltd., 38, Great Russell Street, W. C. 1.

A-EW YORK-G. E. Stechert & Co., 31-33, East 10th Street.

BOMBAY-Messrs. D. B. Taraporevala & Sons.

Delhi-Messrs. A. H. Wheeler & Co.

PATNA-Messrs. A. H. Wheeler & Co.

CALCUTTA—Messrs. Thacker Spink & Co.; W. Newman & Co.; R. Cambray & Co.; The Book Company; A. H. Wheeler

& Co. and Kar Majumdar & Co.

Ra. A

Annual subscription ... 8 8 only (including postage).

Half-yearly , ... 4 8 , , ,

Single Number 1 0 per copy

Foreign ... 16 Shillings (including postage).

CONCESSION RATE:

For Professors, Lecturers, Teachers, Students, Registered Graduates, affiliated Schools and Colleges and for recognised libraries

Single copy ... 0 12

Copies at concession rate can be had only from the Manager, Calcutta Review, and not from agents.

Year begins from October; Half-yearly term from April.

For advertisement rates, agencies and for other particulars, apply to

S. K. RAY, M.A.,

Manager, Calcutta Review,

Senate House, Calcutta.

: : INSURANCE : :

Manchester Assurance Co.

now merged with the

Atlas Assurance Co., Limited.

[Incorporated in Great Britain,]

Triton Insurance Co., Limited.

Eastern Insurance Co., Limited.

Canton Insurance Office, Limited.

[Incorporated in Hong-Kong.]

Hong-Kong Fire Insurance Co., Limfted Experimental in Hong-Kong.]

All Classes of Fire, Marine, Life, Motor Car, Burglar delity Guarantee, Personal Accident, Workmens Compensation and Lift (Third Party liability) Insurance accepted at current rates.

JARDINE, SKINNER & CO., Agents,

FOR ANYTHING IN THE LINE OF

MICROSCOPES, BALANCES, BINOCULARS

and

SCIENTIFIC APPARATUS, Etc.

PLEASE SEND YOUR ENQUIRIES TO

BENGAL CHEMICAL

PHARMACEUTICAL WORKS, LD.,

15. COLLEGE SQUARE

:: CALCUTTA

HINDU FAMILY ANNUITY FUND

(For Bengali Hindus and Brahmos only.)

Established 1872 by Pandit Iswar Chandra Vidyasagar.

Accumulated Fund 15 lacs.
Annuity paid 12 lacs.

GOVERNMENT OF INDIA ARE THE CUSTODIAN OF ITS FUNDS AND GRANT THE FUND CERTAIN FACILITIES.

Secure. (1) Annuities for life for your wife and other dependent relatives.

(2) Old Age Pension for your own support in old age.

(3) Educational Scholarship for your children in schools and colleges.

(4) Marriage Dowry for your daughters.

For prospectus and particulars apply to the SECRETARY,

5, DALHOUSIE SQUARE EAST, CALCUTTA.

USE DAILY

KESHRANJAN OIL

IN YOUR BATH AND TOILET.

IT COOLS THE BRAIN IMPROVES THE HAIR PREVENTS FALLING OFF

Exquisitely Aromatic and Refreshing.

Price Rupee One per phial Postage Annas Seven only.

Kaviraj

N. Apolen & Co., Ltd.,

yurvedic Pharmacy
18 & 19, Lower Chitpur Road,
CALCUTTA.

MANAGING DIRECTOR

Kaviraj SAKTIPADA SEN.

Advertisement

in

The Calcutta Review

is

An Investment

FOR OVERWORKED BRAIN AND NERVOUS DEBILITY-

ASHWAGANDHA RASAYANA

Price, Rs. 1-8 per phial. Charges 10 As.

B. L. SEN & CO.,

36, Lower Chitpur Road, Calcutta.

Medical Advice and Observer sent free.

HANDSOME 14-Ct. ROLLED GOLD EXPANDING BRACELET WATCH No. 75



A new fashionable and elegant wristlet watch of a small size just suitable for both Gents and Ladies obtainable in any shape desired, best Swiss mechanism. Correct timekeeper, guaranteed for 3 years, (No. 75) wristlet watch (in any shape) complete with Expanding Bracelet. Price Rs. 7 only.

(No. 76) 22 ct. 5 years guaranteed rolled gold wristlet watch with bracelet Rs 8-4 only.

(No. 77) 22 ct. 10 years guaranteed rolled gold wristlet watch with bracelet. Rs. 10-8 only.

THE ENGLISH EMPIRE WATCH & CO.,

Post Box No. 1233; MADRAS.

PURCHASE YOUR GRAMOPHONES AND MUSICAL INSTRUMENTS



From

M. L. SHAW

The Premier Dealer in Gramophone and Musical Instruments.

5-1, Dharamtala Street, CALCUTTA. Municipal Market Branch-7-c, Lindsay Street, CALCUTTA.

FREE!

For One Month Only!!

FREE!!!



One best Fountain Pen fitted with Electric light is given away free!

To every purchaser of our 18 ct. Rolled Gold wrist watch, best British workmanship, beautiful case and of a dainty little size and accurate timekeeper, guaranteed for 3 years, very useful for gents and ladies we give one best fountain pen fitted with Electric light which is very highly useful for Reading, Writing, Walking, one and all. Every electric fountain pen will be sent complete with battery and bulb as free This is an astounding offer, Write to-day Price wrist watch with free offer Rs. 6-15. 18 ct. Rolled gold wrist watch alone Rs. 5-15. Electric light pen alone Rs. 2-8.

WOOD-WARD & CO., Mount Road P. O., Madras.

FOUR GREAT BOOKS

Second Edition Revised and Enlarged.

1. The Masters and the Path BY THE RT. REV. C W. LEADREATER WITH A FOREWORD BY MRS. ANNIE BESANT, D.L.

And a comprehensive and useful Index. Together with a new Coloured Picture of the Wesak Valley in the Himalayas.

Contains wonderful information regarding the Masters, Their existence and work, Their physical bodies and Their residence, the way to reach Them, on Probation, Acceptance, the

Great Initiations, the Ego and the Trinity.

It speaks of many things which have hitherto been studied and discussed within a comparatively small circle consisting of students well versed in Theosophical knowledge. and ready to study statements concerning regions which they could not yet enter for themselves but hoped to enter later, and then to verify for themselves the statements made by (From the Foreword) Cloth and Gold Rs.

2. Talks on the Path of Occultism Cloth and Gold Rs. 8-4. Boards Rs. 7.

is a companion volume to The Masters and the Path, and is intended for the daily use of aspirants. It consists of a commentary by Dr Besant and Bishop Lendbeater jointly on At the Feet of the Master, The Voice of the Silence and Light on the Path, and is full of detailed explanation, advice and instruction. Pages 969 with full Index.

Price : Cloth and Gold Rs. 12. Boards Rs 10.

For Masons and All

3. The Hidden Life in Freemasonry

By V.:III ::Bro. C. W. Leadbeater, 33° With a rolled coloured picture of the Masonic temple and 11 plates 3 of them coloured. Cloth and Gold Rs. 9. Boards Rs. 7-8.

"The book under review is a new work of its kind, one that will be welcomed both enthusiastically and with gratitude by all lovers of the ancient rite. It is a fount of knowledge, very illuminating all through, It has opened a new vista to those of us who are interested in the subject. All masons who desire knowledge will welcome it and find in it food for reflection. It explains lucidly the meaning of mysteries and ceremonies observed in this ancient system. The author has approached the subject not in dogmatic manuer but in the true scientific spirit."- The Leader.

4. Glimpses of Masonic History
By V.∴.III.∴.Bro. C. W. Leadbeater, 33, pp. 380. With 12 Plates and the Frontis. piece (of the Author). Cloth and Gold Rs. 7. Boards Rs. 6-8.

Works by Benoy Kumar Sarkar

ECONOMIC DRVELOPMENT: Snap-shots of World-movements in Commerce, Economic Legislation, Industrialism and Technical Education, Pages, 36 + 428. Price &c. 8.

Sociological Review (London): This book is of interest to us Westerns on its ewn merits of extensive knowledge of us; as well as for its presentment of Indian outlooks beyond those commonly current. For instead of abstract politics we have here concrete economics, and seen as fundamental to politics, largely of a new kind. To the general student of economics this treatment should be suggestive; indeed at its best it is exemplary.

Prof. Sarkar has for many years been studying one European country after the other, and from many viewpoints: so his book is a result not only of reading, but of wide personal intercourse and travel, and full of economic information and social reflection from all these sources.

With all his descriptive cencreteness, there are large and bold generalisations, and frequent passages of social criticism and interpretation; and these ranging over France and Germany, from America to Japan, and of course from India to Britain, and house again; in fact leading up to a broad sketch of an economic policy, very comprehensive for young India.

Alike as widely informative, and as actively stimulating this book will be found well worth looking through and thinking over, both in East and West.

Professor F. W. Taussig (Harvard University, U. S. A.): You lay out a large program in a statesmanlike way. What you aim to do would tax to the utmost the capacity of any set of people.

Professor L. T. Hobbouse (London): Your point of view is in some ways novel to me.

Professor E. R. A. Seligman (Columbia University, New York): Glad to notice that you do not share the opinions of your compatriot Gandhi about the industrial future. * * Very sensible and worth while.

THE POSITIVE BACKGROUND OF HINDU SOCIOLOGY. Book I. Pages 23 + 866. Rs. 7. Book II. Pages 240. Rs. 6.

Professor Alfred Marshall (Cambridge): An important contribution to our knowledge of India.

Professor Sir Gilbert Murray (Oxford): Not only full of learning but full of points that may throw light on the problems of my own studies.

THE POLITICAL INSTITUTIONS AND THEORIES OF THE HINDUS—Pages 24+248. Price Rs. 9.

Journal of the Royal Asiatic Society (London): He seeks to give a readable account, and this he has done with frequent allusions and much elegant writing.

International Review of Missions (London): A remarkably incisive and learned piece of scholarship.

THE PUTURISM OF YOUNG ASIA AND OTHER ESSAYS ON THE RELATIONS BETWEEN THE EAST AND THE WEST. Pages 10+899 Rs. 9.

Manchester Guardian: An introductory essay and five astonishing monographs.

American Political Science Review: The wide range of subjects intelligently discussed reveals evidence of unusual versatility on the part of the author.

THE POLITICS OF BOUNDARIES AND TENDENCIES IN INTERNATIONAL RELATIONS Pages 18+323. Price Rs. 8-8.

THE POLK-ELEMENT IN HINDU CULTURE—Pages 20 4 812. Rs. 18-8.

GRETINGS TO YOUNG INDIA: Messages of Oultural and Social Reconstruction; with illustrations. Pages 22+158. Re. 1.

CHUCKERYERTTY CHATTERJEE & CO., LTD.,

15, College Square, Calcutta.

THE CALCUTTA REVIEW

DECEMBER, 1927

CONTENTS

	Page.
Kindered Sayings On Buddhism—C. A. F. Rhys Davids,	
M.A., D.Lit., Chipstead, Surrey	245
Early Intercourse Between England And India—Harihar	
Das, B.Lit., London	262
Indian Bazaars (Poem)—Leland J. Berry, Birmingham	268
South African Diplomacy And India-Taraknath Das,	
A.M., Ph.D., Münich	269
Some Tendencies of Modern Poetry-Lotika Basu, B.Lit.	280
Some Recent Achievements of Chemistry—Satischandra Mukerjee, M.A., Professor, Hugly College, Chinsurah	294
Universities and National Life—S. Radhakrishnan, M.A., King George V Professor of Philosophy, Calcutta University	303
Joy of Love (Poem)—Mohinimohan Chatterji, M.A., B.L.,	
Solicitor, Calcutta	001
Fear-Rashranjan Basu, M.A., B.L	323
Yesterday (Poem)—Gwendoline Goodwin, Sheffield	324
Kandy—Terèsa Strickland	
The New Economics of Land-Benoykumar Sarker,	
M.A. Lecturer. Calcutta University	220

CONTENTS

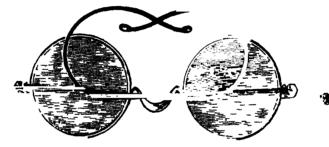
Consolidation of Agricultural Lands in Bangal—Rai	~
Bahadur Bejoy Bihari Mukherji, B.C.S	343
Mists (Poem)—Linwell Röhl, Minneapolis, U.S.A	357
Reviews:	
The Natya-sastra—S. K. De	858
Kautilya: A Critical and Historical Study-N. C. Ganguly	86 0
Chandidaga—Les emours de Radha et de Krishne—P. C. B	282

FOR DEFECTIVE EYESIGHT COME TO

THE CENTRAL OPTICIANS

20/A-8, CHITTARANJAN AVENUE (CENTRAL AVENUE), CALCUTTA Telegr. Address—Japdepat] [Telephone: B. B 2857

THE EMPORIUM OF THE MOST UP-TO-DATE AND FASHIONABLE TYPES OF EYEGLASSES
AND HAVE YOUR EYES THOROUGHLY EXAMINED



ALSO TELESCOPES, GOGGLES, SUN-GLASSES ALWAYS IN STOCK
Prices from RUPEES THREE upwards

Satisfaction Guaranteed

Give us a chance before you go elsewhere

CHRONOLOGY OF ANCIENT INDIA

SITANATH PRADHAN, M.Sc., Ph D., Brihaspati Price Rs. 6.

It is perhaps the most erudite and interesting book on the Chronology and political history of Vedic and Buddhist India that has ever come out of the pen of an Indologist. The bewildering labyrinth of Vedic Chronology is wended through and about with consummate skill, and enormous masses of evidence collated, compared and contrasted. All students, professors and lovers of Ancient India should at once send orders only to Dr. S. N. Pradhan, c/o The Calcutta Review,

Senate House, Calcutta.

6

THE CALCUTTA REVIEW

DECEMBER, 1927

KINDRED SAYINGS ON BUDDHISM

TIT

MAN AND MAN'S WILL

In seeking a worthier place in our world-view, to hold good in both East and West, for the will, we considered, in our second article, the willer, the man. And if I now come back to the will, it should be to speak with greater weight, in that I bring with me an ally most indispensable. It is impossible rightly to appraise will without willer. In our Western academies we have long been trying to do so. We have the word willer as well as the word will, but you will probably not find the former' word once in any work on psychology, or even on philosophy! It is perhaps significant herein that, while the West speaks of self. soul, spirit, it does not use the word 'man' as equating these. But India has done so, may still be doing so, and may she ever do so! And though, in speaking of 'man,' the 'very man,' the 'man-in-man,' I have been handicapped by departing from Western usage, I have felt all along, in addressing Indian readers, that through their traditional word 'purusa' they were keeping step with me as the West might not. In England we have seen but lately a well-known medical writer publish a

thousand pages of an inquiry In Search of the. Soul, before he comes to the conclusion:—it is truer to say 'man is soul,' than 'man has soul,'—as our world has till now persisted in saying. Had Dr. Hollander been a son of India, I scarcely think it would have taken him so long. So much may we be affected in our view and our work by the want of a word, or by a limit in the use of it!

We have a long way yet to go before the world brings itself to see, that man is soul. But I am not without hope. The other day I read that conclusion stated independently; the 'time-spirit' may one day come to say it always. But if India could be stimulated to teach us to say it, tradition gives her a better jumping-off ground than have we. We shall not ever rest complacent in our view of man as a complex, a 'bundle' (sasambhāra), as the Buddhists said, of body and mind. Dr. Hollander himself inclines too much to seeing what is but a bundle in 'soul,' that is, 'as comprising intellectual capacities, emotions and instinctive impulses—indeed all that appertains to the mind and character of man.' But the 'man' is not just the sum of his 'comprisings' or his 'appurtenances.' Nor is he even the product of these, as General Smuts's 'holism,' improving on the 'sum' or 'bundle,' would affirm. Man, I would venture to say, was not, as product, dictated to in his evolution by the 'sum'; he dictates to the sum. He mandates it; it does not mandate him. Only if he were matter, could it mandate him. If India, young India, who assimilates from us not always what is really worthiest in Western treasure of knowledge, would concentrate on giving us our lost, our never worthily realized Real 'the man,' this were a great gift indeed. For even where, in Europe, there is the double in words, as there was in Latin: homo, vir, e.g., in German Mensch, Mann, usage does not give us, in the former, the 'purusa.' German vision has become as limited as ours; 'Mensch' is but man in

¹ fice his recent publication ; I forget the exact title,

the mass. But I am concerned with each one in the mass, with man the person. We are but at the midway stage of knowledge, gripping the many in the one; we have not yet redescended into the new, the stronger grip of the individual. Where the individual is properly grasped, there the man becomes rightly worthed as 'man.'

In this sense India has both word and tradition. But the young are impatient, and rightly so, of tradition. I am with them in wishing to see tradition evolving into a new stage (as tradition is ever, if very slowly, doing). And here we have the better of her as yet in one word, even though we are neglecting our heritage. India used not, I have said, to speak of the 'man' as willer, nor that, in his self-directing activity, he was all the time 'willing.' She sees him as thinker, speaker, doer. But without the right bond underlying all the three, the first two are separated from the third. Doing, as such, is of the machine, is of the material. We are concerned with the 'man' as doer. To equate doing with thought and speech, we have to show all three as of the 'man.' And it is as fundamentally willer, that he does each of the three.

How strangely and pathetically interesting is the history of human ideas! Eastern insight sees the man as ultimately more real than his functions and factors. But lacking a further insight into his nature, it often represents him as straining away from his doing and deeds, as seeking deliverance from them, and seeing in man the contemplator. Western insight does not shrink from the deed, from karma, as does the monastic of the East; it inclines to see man fulfilling himself, working out his salvation more in his deeds than does the East, yet it fails to grasp what is the ultimately real in the doer. And herein, failing also, Buddhism anticipated the West.

Without willer, I have said, there can scarcely be a worthy treatment of will. I find no satisfying handling of the subject in English analysis of will. This has now, so to speak, run-to-seed, in schemes of animal impulses and instincts. 'Will' has

been pronounced as belonging to the early Victorian scheme of 'faculties,' that is, as constituting what may be called a separate drawer in the cabinet of mind. It is sought to oust it by such questionable terms as 'hormé' and 'libīdo.' But neither in such works is the subject treated as the self-directing of a willer, as inner activity of a willer. The procedure adopted is, we may say, by transverse sections of 'mental' process. Or if a source be referred to, it is frankly called 'animal,' not human. Conventional language must, it is true, be used in describing, for the normal man's experience is the main subject, and conventional language has never eliminated the man from man's experience. But he is talked of only to be dropped out of the argument. Hume, for instance, in his famous attempt to 'catch myself,'-with which he has tricked so many in East and West-accepts as true what he experiences as 'his heat' or 'his cold,' 'his loving or hating,' but fails to discerm, under his very (spiritual) nose, the 'I' in virtue of whom alone the feeling or emotion has any existence whatever. Neither feeling nor emotion, as such, is present unless there be first the 'I,' the 'man.' He put the cart before the horse, then unyoked and dismissed the horse. The cart makes no progress.

Neither does our psychology. One psychologist of distinction we had yesterday, who sought to restore to psychology the 'man' it failed to bring along; when it was divorced from philosophy. "Why," said James Ward in effect, "since the 'I' is implicit in all analysis of mind, and analysis should be exhaustive of its field, why ignore the 'I'? Why hide it away?" It was a fine start in a great reform. But he weakened his position, first by verbal concessions, which his rivals trotted out against him, and then, by not recasting the scheme of Victorian psychology, with its exposition, as a study not of mind, but of man the minder. So far as I can see, he failed to secure any following. The science was trending in a manless direction, and its tide he did not stem.

He had a special opportunity when dealing with will.

He, if any one, might have seen that here, if anywhere, the man must be brought in. Yet here he brought no 'more-word.' Following the usual plan, he took will at the end, when he had spent himself already in emphasis. With academic lecturers, as with Indian commentators, much fulness at the start involves a shortage in time, or space, or energy at the close. Is it sad, or only amusing to think, how much in young thinkers the current neglect and ignorance of the nature of will may not be due to this hustling to make an end? Do I merely conjecture? Well, I have been present at such hustlings; I can hear the teacher say with a wry smile: 'I omit time for lack of it.' Space had absorbed overmuch of it. We know how important, in learning how we come to fill-or deem we fillspace, is the part played in that learning, by touch first teaching sight, and then by sight representing touch. Time has to take a back-seat, is referred to hearing only. And so we never came to hear the teacher's stimulating and suggestive thought on time at all!

In Alexander Bain's psychology the 'man' was shelved, but he made a notable start as to will. He preceded his discussion of sense and thinking by a glance at those actions, which do not seem to be made as a result of foregoing mental causes, especially the exuberant actions of the young. 'Spontaneous activity' he called it, an excellent term had he looked more closely at its implications. 'Mea sponte'—the Latin mother-idiom-forces both the 'mea,' the 'mine,' the man and his will, to the front! Here is no mere interplay of nervous and muscular discharge. The man, yes and the mere animal also. is in such actions expressing joyous energy with will-play in the healthy young body. But thereupon Bain dropped the will, picking it up again in the current vogue at the end of his work, after a long analysis of 'intellect' and 'emotions' with all the bottom knocked out of it. That thought and emotion are but modes, serious or trifling, of that same will-play is not conceded, and 'the man' only plays the part of a fiction of language.

Were we to begin our psychologies with 'the man' as an inexpugnable factor in all our conscious experience, were we to show all the other factors as the man's self-expression of a self-directing towards or away from-but fundamentally towards—we should not cross-section our work on psychic life, we should get a unity and a cosmos where now we have a chaotic manifold. We should supersede the tripartite division of yesterday, and the invertebrate treatment of to-day. Ward, let it not be forgotten, did attempt a unitary scheme at the outset of his psychology. He could do so, for he took 'the man.' But he left out the will, left it out, that is, from its proper place. His scheme was one of 'Self and Presentations to Self,' feeling and action being appended as results. Now this was just the old-world view-I have enlarged on it elsewhere 1-of man as spectator, rather than willer and worker, man as watching his world-pageant go by and naming it, as Adam did the beasts and Gotama Buddha the factors of mind. It leaves out, does such a scheme, what Adam did to the beasts, or with them, and why. It loses sight of the fact, that man only so watched because he wanted to act, to get, to become. Fundamental alone is movement, and the inner, the incorporeal movement or activity is most rightly expressed as will. For this inner, or psychic activity is at bottom effort to get, to win, to become. This is why we call it self-directing. This is why, without the Self, we can only treat of it as a merely physical force. Will is the act of 'mandating a mandate by the mandater.' To choose, to worth, to mandate are all inconceivable functions to impute to a physical force only.

And man's will is at work when he is thinking, whatever be the mode of his thought. This was curiously overlooked by Coué and the 'auto-suggestionists, as I have said elsewhere.'

They require the patient, when in a given physical state, so

^{*} Buddhiet Paychology, 2nd ad. (supplement) Epilogue; Will and Willer, Ch. 1911 pp. 8 ff.

^{*} The Will to Peake, pp. 89ff.

to dispose his inner (psychical) world as to imagine he is what he is wishing (as patient) to become. This, they say, will prevail where will cannot. But they are using will in a too narrow sense, in the sense, to use a medical term, of 'synergy.' Nothing in either the French or English language justifies this forcing a contrast between 'will' and being just 'willing to imagine.' Nor could anyone deny that the prescribed work of imagination was other than a 'voluntary' act. Thinking in any form is man willing with order, system, articulation, enunciation of what he himself experiences whether this be as true, or as beautiful, or as better, or as their opposites. And feeling, emotion is the man reacting to the work of will in worthing. I have compared it to a reverberation, to the vibrating of muscles working-mere physical terms, which do not really help. We can understand what our books have called somatic resonance, bodily reverberation. But in the very man's reaction we are up against an ultimate, where description in terms of anything else is mere analogy and metaphor. We are the man, we are the ultimate, whether we he willer willing or willer reacting. Our psychologists have found in feeling the state most unmixedly subjective. But this is largely because their view of man has been so limited: firstly as to the man himself. secondly as to his inner world being wholly not partly active, wholly not partly dynamic. They have tended to look upon feeling as passive. Yet there is no phase of our inner world, in suffusion, in diffusiveness, in 'expansiveness,' so dynamic as feeling. We look on the word emotion too much in the way of the new French passive participle émotionné. Feeling is reacting, not the having reacted. We may say that the 'man' is never passive. When the body is utterly passive, it is, as his medium of self-expression, at its lowest terms. Either the man is needing it relatively less, is playing slowly, softly on it; or it is not in a state of physical. efficiency as instrument. In sleep the 'man' is not passive, but that problem I cannot take up here, The West has much

yet to learn in it; so has the East, only less. The West will grow wise in it when it worths the man; the West will grow wise in it when it worths the will.

Is there no one, in either East or West, who will give us a psychology not of mind or of consciousness, but of Man the willer, a psychology of Man and Man's Will? One thinker we have yet with us who some years back showed a noble impatience over our denseness. He made appeal to the little world of psychologists—but, alas! to no wider world as well,—with an essay on a scheme of 'Conational Psychology.' In it he tried to show will, conceived in a wide sense as 'conation,' as the fundamental factor in all phases of mind. I do not know who first used conation, I think it was Sir William Hamilton. Dr. Johnson knew it not. It was to mean tendency to act, trying, or striving—the German streben—so that we might have a simple elementary term, without the mixture of feeling there is in desire, or the intellectual mixture there is in judging, or resolve, and so forth.

From the point of view of the academy this is very plausible. If psychology is to be ranked as a science, it is not reasonable to grudge her technical terms.....And yet, by her very subject, it is for her to walk, not in the grove or the Stoa, but in the marketplace, yea, in the home. Our age is feeling this. Our press is feeling this. It is flooding us with book and with article on the mind of man, not only on the body of man. Health in mind and body is the cry of to-day; the need of the new world after long days of fearful waste and suffering. The general reader, the general listener-in wants to know. Psychology cannot afford to be technical, if she is to be efficient, if she is to help man to know himself. She does not need to be technical; if she is worth her salt, she can quite well help him in the terms he knows well. She has to make these terms more, not less efficient, wider, not narrower. Let

¹ British Journal of Psychology, December, 1911 'Foundations and Sketch-plan of a Constional Psychology.'

her use will in its full scope. Let her make a great word of 'Well,' not a feeble adverb. Let her find a great and simple word for 'Werden!' Let her deepen 'man' to mean man's very nature, not body only, not mind only, nor the sum, nor a complex, nor a product of these.

Let her do all this as training, as mothering, as preparing the general reader, the general listener-in for the fate that will one day be at hand: the fate, the day of the new mandate, the day when he will rise on the stepping stones of old creeds to receive new light on life, on the worlds, new light that h will receive, will accept in proportion as he has been looking for it, training for it.

I do not find that Professor Alexander's Conational Psychology won any more followers than did Ward's Selfheaded Psychology I only wish it had. I speak with diffidence of one so wise and by me so honoured, but I venture to think, that such want of result as actually followed was due to three things:—he was timid and tentative where he might have been firm and uncompromising; he did not posit the 'man' in the forefront, but introduced him incidentally, as it were by a side door (on the 19th page and in a note); he used for his central idea a weak ineffective term. He confessed to a desire to supersede cognition by conation. But his theory called on him to go further and to make conation supersede mind. 'Mind is made up of conations'; he wrote;..... 'there is nothing in the mind but acts'; 'every mental act is a conation and is nothing else': -these are emphatic uncompromising sayings. And if a reformer, if a pioneer do well to call a spade a spade, instead of some less true, but prevailing name, then in this author's diction conation should have practically ousted mind, when used in a more than specific sense. But it did not do so. Moreover it is an awkward word; it names but thing. not act, not agent. And it is of mushroom growth. These together make it unfit to name a great fact, one of the biggest facts of our life. My own teacher made a similar effort to

push the word 'intellection' for thinking or cognition. It was doomed to failure, and for the same reasons. He judged that cognition involved 'object' too much for psychology, i.e., consideration of process. Professor Alexander held that will also involved 'object,' and was therefore presumably too specific, too little general a term.

The anxiety of psychologists to wean their subject from its mother is to me a little pathetic. It is an artificial screening off during analysis, which may at the moment be very useful to the pupil. Beyond that it is cramping, and in the long run futile. For the psychologist has more than the classroom to consider. And that is the progress, the growth of world-ideas. The world is waiting for him, waiting for him to give it, not analytic cross-sections of life, but worldmandates, 'mondial' mandates, about this very big thing in life which it generally calls mind, intelligence. If he will tell the world that this is really and more truly 'conation,' and why, the world will probably pass by on the other side. It has done so. If psychologists will take a great, old word such as men all use, use especially in crises big and little, a word hallowed by its association with a widely spread creed, and if they will admit this word in their analysis to the wide meaning it can bear, and not nail it down to the narrower meaning it often (but not always) does bear,—if in a word they will use 'will' as the general name for the inner or psychic activity of man the willer,-then they will call to men with more chance of being heeded, then will they be bringing to men a mandate pregnant with the future, then will they be showing men what a sword to cut down ignorance and evil they have in their own, their inherent nature. A technical term takes root quickly when it words some conquest over that which is not ourselves. But it may be otherwise, when man is called upon to reshape his very self-knowledge. Easier, quicker will it be

¹ fe Thy will be done .. not my will, but Thine be done,"

for him to do when the names in the reshaping are already used in that self-knowledge. Such are the names: 'man' and man's 'will.'

I said above: such as all men use. But that this is not true of India I have done my best more than once to show. That India could have shaped a true word for will and did not do so, is an important historical fact, which writers (and translators) should not either evade or glide over as they so far have done. But I am not fanatical on the subject; I am no less keen to worth the makeshift terms that we find. Let us briefly review these. And let my point herein be noted: we do not find man generally described in terms of any one of them, with one solitary exception. The general description of man in nature or agency will be in other terms (such as those in which my first article opened).

The solitary exception is that "man is made of 'kratu," " "consists of kratu" -- kratumayah purusah -- This is in the sayings attributed to Sandilya in the Chandogya Upanisad. Dictionaries give kratu as meaning 'purpose, plan, design.' Max Müller translates it here by 'will'; Hume, by 'purpose'; Deussen and Bloomfield, by 'insight'; Tatya, by 'reflection.' The word is plentifully used in Vedic writings and, with regard to India generally, tests my position to some extent. Had Indian teachers realized the truth and importance in Sandilya's saving. it is possible that they might have reshaped their view of man. and have fostered the use of the word in its Vedic meaning. But that meaning seems to have died out, and kratu to have become merely or mainly a term of ritual. Anyway, whereas it was a word very suitable for the vocabulary of early Buddhism, whereas it was a word which it is hard to conceive the Founder not using, had it been current in his day, we do net find it in a Pali form in any of the sayings in the Pali books. It is highly probable that, as a psychical term. it had then become as obsolete as, in England, another valuable psychical term, the term 'inwyt' also became obsolete.

The somewhat similar, if weaker, compound term samkalpa; Pali: -sankappa, seems to have been replacing it. It is not a Three-Veda word; it first appears in the TaittirIya Brahmana. It has the meaning of purpose no less than kratu; it suggests 'thought' at least as much as 'wish-to-do'; it suggests work of mind when confronted with need of action. that is, of overt action. Hence translators are seldom at one how to render it, as I have shown elsewhere. Now this word was current, it may be said, in Gotama's day. It forms a 'limb' or aspect of the 'Way.' And though the limbs of the Way called the 'eightfold' may well have been an expansion made by the Sangha of the more probable threefold, older division of human action, so often ascribed elsewhere to the Founder, it is very possible that this expansion was made before the end of his long life. Elsewhere the word occurs seldom, but always its meaning is dynamic. Thus in the Sutta-nipāta we see the aged loving disciple Pingiya telling how, his body inert, he hies in thought, "by sankappa's going," ever to the beloved man. Again we read: "Is his mind (manas) well aimed as to all creatures? Is his sankappa as to the desired and the undesired under control?" The satisfied person is said to have his sankappa's fulfilled.8 And the word is used in two other categories, both concerned with conduct. The later definition of sankappa in Abhidhamma is also dynamic, at least as much as it is the opposite. It is made an equivalent of vitakka, which is an active, attentive aspect of mind; as such it is likened to fixating, focussing, setting thought on to the object.4

This is not without value in a gospel of the will as was the WAY. But this is all. Save in the numberless reiterations of the Way as eightfold, sankappa plays a very thin part, and, separately, less use is made of it than of any of the other seven 'limbs.'

¹ Verse 1144.

Majjhima-Nikāya, twice.

Ibid, ver. 581. Dhamma-Senoeni, 5 01

But, it will be said, what of that other compound: 'sankhārā's.' And what of its first, and perhaps therefore its dominant item: 'cetanā'?

As to cetanā, a word which in structure is simply 'thinking,' it is true that it has come, in modern and possibly mediaeval Buddhist schools, to stand for the Western word will or volition. It is possible that, in course of the growth of thought and word, the lack and the need of such a term had come to be felt. But in the Pali scriptures this feeling is not manifest. It is true that once cetanā is called kammam, but then all mind, all thinking is rightly called kammam, manokammam, and the point of the text is that cetanā is action of mind: 'having thought (or purposed), we act in thought, word and deed.' Together with cetas, cetanā, like manas, has to do double duty for thought and will.

And as to sankhārā, a word which is not Vedic, and, at least as applied to our inner life, must have been new in Gotama's day,—we have seen the same thing happen even in our day with the word 'complex'-it means not a force such as is will, but any mental manifold, any mental compounding. The notion of activity is present, to bring this out, I have substituted 'activities,' 'synergies,' for the more static 'syntheses' of my earlier work. But the emphasis in the term is in the 'manifold' rather than in the activity. It must be remembered that the Buddhists were what we would now call pluralists, keenly interested, with the spirit of their age, in the manifold and the analysis thereof. It was the many in man, not the man, that drew them. Their interest herein was that of the doctor in disease. Both compound action and the compound thing were impermanent. woeful, not the 'man.' The Well they sought they came to word later as the 'uncompounded datum'-Nirvana.

So far then we have not lit upon a simple equivalent for either will or willer. Now when once there is purpose, aim,

¹ Anguttara-Nikāya, iii, 415.

plan, there has been will at work; there is now emergence. For that matter India is not found speaking of man even as planner, purposer, aimer. Let us fall back on the words preceding his action as such. There is, I have said, desire: kāma. Here is a strong simple word that might well have served as does our will. In one passage only, to the best of my knowledge, does it so serve :- 'Man is altogether kāma : as is his kāma so is his kratu; as is his kratu so is his karma; as is his karma so is his destiny.' It is a noble and pregnant utterance, foreshadowing in its last clause much of India's religious teaching. But as to its first clause, the level of truth was not maintained. The Vedas had already declared kāma to be 'the first seed of mind.' Here we have the static worthing of man's inner world preoccupying the later sounder position of the Upanişad reformer. And later usage worsened kāma to mean the urge to sense-pleasure. Religion, coming to take its stand on the moral betterment in man, found in it no worthy instrument.

Chanda practically shared the same fate. Almost the Pali scriptures suggest an effort to salve it from sensuous uses, and worth it as will, or at least as worthy desire. We even have it guarded later by the prefix dhamma-, 'righteous desire.' I do not value its apparent promotion in the Iddhi-pāda formulas; it will there have originally meant 'mantra,' its other meaning; the presence of viriya almost justifies this conclusion. But nowhere does it really rank above just 'wish'; nowhere is it given any important place in man's nature or conduct; it is often made equivalent to rāga, and the saint is said to have laid it aside. It was too suggestive of the more radical tresā to commend itself to the ideal of the monk.

Then there are the words for modes of will, the words for effort, endeavour, energy. Here we see a notable contribution by Buddhist thought. Here we see how Buddhism needed

Section I. * Brhadaranyaka Upanicad, 4, 4, 8.

the wording of will, how largely its teaching had been at first shaped to be a training of man as willer, how far from true it is to speak of it as an unmixed Quietism, or pessimism, albeit it came to be largely the one and the other. Viriya and padhāna are worthy makeshifts for will; the former is peculiarly Buddhist from the first; padhāna is not solely a Buddhist term, yet it was chosen for the formula best showing the attempt at systematic will-training in the teaching. As such it is always called the right effort (samma =). To viriya there was not only given a place in the expanded formula of the Way, it was also made one of the five spiritual faculties (offset doubtless to the five senses); a host of interesting equivalents go to describe it in Abhidhamma, and to it is given man-value, agent-value, in the word viriyavant, padhānavant, albeit such use is very rare and perhaps poetical only:

so viriyavā padhānava dhiro tādī.2

I have called the evangel, starting what we know as Buddhism, an appeal to man the willer, that is, the seeker after, the chooser of the Better, who inevitably becomes better in choosing the better. I called this a great opportunity, missed because of two things: the traditional view of man as radically thinker, and the vehicle of monk-monopoly. In the last article I have tried to show how the vehicle missed the right 'Way' by dropping the 'man.' Here I have showed how the vehicle, handicapped from the start by having no fit word for will, tried to some extent to make good by a fairly worthy emphasis on makeshift terms. After all, you will say, the Buddhists were aiming at the evolution of the perfected man, the arahan, or even a Buddha. And for this, individual effort, individual resolve were essential.

This is true. But note how they cut the ground away from

¹ Dhamma Sangani, § 18. Suțta Nipāta, eer. 581. * Şeptica I, June 1927.

under their feet. For their perfect man they had no worthy conception of the very man, the man-in-man. This was no unseen very-real, akin in nature to That Whom he sought, expressing himself by will-, or mind-force in the seen body. There was but a compound of mind and body—so it came to be held—and the only worthy perfecting was of the mind. Yet this was expressly held to be 'not of you,' not the very man (attun). And since all that was body and mind was anitya, subject to birth and death, the only way to conceive the perfect man, i.e., mind, was as the done, the ended, the completed, the will-less, the done with life, done with the better, done with the yet to be, the yet to become. The formulas describing the saints and saintship show this very clearly.

Let us not quarrel with Buddhism because it took as its ideal the man made perfect. Is there any other religious ideal so worthy as this? Where we may join issue is with those Buddhists who cramp and contract that ideal. It is a cramping of that ideal to judge that any man can attain, or can ever have attained perfection on earth, so that at death, even if he come not again to earth—that may well be—he ceases to be man, he peakes to become.

Of this more hereafter. Had the followers of the Founder and of his worthiest fellow-workers grasped the very truth, which, in spite of want of the word—the new bottle for the new wine—he tried to teach in 'the Way,' I think they would have found fit words. They could have taken up old words, like kratu, or framed new ones. Language, I repeat, is strewn with these increments. Some man in India, long after the beginnings of her literature, brought in samskāra; some man brought in samsāra; some man converted hita into its meaning of welfare, and we could, any of us, quote other cases. And it is not always, if ever, the inventor of the new who finds the fit word. Ask Signor Marconi! It is the men who are to the fore in worthing and taking up what he has thought and uttered.

But the after-men of Buddhism were not worthing as of central importance what their founder tried to say in terms of the Way. It is a very tragedy, but not found in Buddhism alone. They were monks whose central theme was that the world is ill, and this was the world they had left, left the growth of it and the working with it and fellow-sympathy with it, brotherhood with it. Will, the will to become—how were they likely, with such views, to find a fit word? They only lit upon trenā, tanhā, for 'will' meant more life, and that, even in any world, was in the long run ill. Other worlds, as ways for ever nobler exercise of will, were no more appreciated. Life in them must be met by nirodha: stopping; the will to live must be stopped. They dropped the man, wayfarer through the worlds. Was it likely that they would seek to name man's will which is the man's most essential self-expression?

C. A. F. RHYS DAVIDS

EARLY INTERCOURSE BETWEEN ENGLAND AND INDIA

The general belief of all the European adventurers who. in the fifteenth century, began their "quest of the Indies" was that they were to accomplish the discovery of a new way to this goal. The intercourse between India and Europe through Egypt, or overland with the Mediterranean, goes back to the earliest times of recorded history. A succession of political convulsions in both continents interrupted communications for centuries and led up to the period when it might be said with truth that India had to be rediscovered by Europe. That fresh discovery was gradual; and, although the scenes they visited lay far to the north, the Papal envoys in the thirteenth century, who visited the Court Camps of the Mongol Khans and at the same time the residence of the Venetian, Marco Polo, at Cambalue, the modern Peking, all contributed in different degrees to increase the general desire to reach still unknown divisions of the Eastern Hemisphere.

Without doubt the absence of an exit by water at the Eastern end of the Mediterranean complicated the situation. This defect in Nature left no choice to Europeans but the arduous and perilous overland route across Asiatic Turkey, Persia and Afghanistan, until the Portuguese under Vasco da Gama turned the Cape of Good Hope and opened up the Indian Ocean in 1497. The immediate result of that grand discovery was the creation of a Portuguese Empire in India by Albuquerque which remained undisturbed by other Europeans during the whole of the sixteenth century. The Portuguese termed their possessions an Empire, but they represented more correctly a trade monopoly first conferred by Hindu Kings and subsequently ratified by the Mughal Emperors.

After the Portuguese, the Dutch and English entered the field, their intrusion into the Portuguese sphere commencing

with the closing years of the sixteenth century. But the Dutch passed on to more Eastern scenes leaving to others the contentions that arose on the Western coast of India.

There is no more fascinating chapter in Anglo-Indian history than that recording the visit of English envoys to the Court of the Mughal Emperors to establish a commercial connection with India. Never before in English history had the idea of commercial expansion in the East become so dominant as it was towards the end of the sixteenth century, and it was a legitimate ambition on the part of the English to take effectual steps to establish a distinctly English trade in those regions where other European nations were claiming an undue commercial influence and monopoly. That the enterprise ultimately assumed a national character is due to the impetus which the early pioneers gave to activities and plans for securing the desired end. The first Englishman in India of whom there is any record was the Reverend Thomas Stevens, S.J., of Winchester and New College, Oxford, who joined the Jesuit Order to become Rector of their College at Salsette in 1579. It is doubtful whether he would have aided any of the early English traders, who represented a Protestant Power, even if he ever had knowledge of them, but at least he must have let the Indians know that he was not of Portuguese nationality. Certainly some curiosity existed in Western India about the unknown English before their first representative set foot in that country. The dawn of English trade with the East Indies dates from the first voyage of James Lancaster in 1591. To Ralph Fitch must be accorded the honour of being the "pioneer Englishman" who went to the Court of Akbar armed with a royal letter and succeeded in obtaining some practical results. The accounts which he and other English envoys give of the Court of the Mughal Emperors form a series of fascinating glimpses into Indian history and throw valuable sidelights on the conditions of life under Mughal rule. John Mildenhall visited the Mughal Court, after an interval of

twenty years. He was a man of altogether different character from Fitch: of unscrupulous methods and somewhat impeachable morals. Mildenhall assumed the rule of an accredited envoy from Queen Elizabeth to the Emperor Akbar. Hawkins arrived in India in August, 1608, entrusted with a letter written by King James requesting Jahangir to grant reasonable liberty to the English that they might trade and establish a factory at Surat. He was well received on his arrival in India and soon came to be regarded as the representative of a people of whom much had been heard, but who had seldom been hitherto welcomed to Indian shores. In spite of opposition from the Portuguese and Dutch, Hawkins was allowed to reside in high favour at the Mughal Court. The Emperor Jahangir gave him the rank of a mansabdar with a yearly allowance of £3,200 and the former further showed his interest by endeavouring to provide him with a wife in the person of a daughter of an Armenian Christian. Hawkins' friend William Finch came out with him in the Hector. During his short stay in India Finch was able to collect an extraordinary amount of topographical information concerning the cities and towns visited by him. These men and those who followed afterwards were the real founders of a political situation unprecedented in the world's history and they paved the way for that later generation of Britons who, under more favourable circumstances, carried forward the flag of Empire to a magnificent consummation of unchallenged supremacy, more extensive than the dominions of Akbar or Aurangzib. Who can doubt then, that these pioneers are worthy of a place in the illustrious roll of Empire-builders?

All these early travellers set out on their adventurous journeys inspired by a common motive. That was the desire to bring their own country into contact with India for the promotion of trade. The desire,—even the very thought—of conquest was completely absent from their minds. There was rivalry between the different nations of Europe, but all equally desired to obtain the favour of the rulers of India and to

conciliate the goodwill of her people. In regard to the latter object there was no difficulty. The peoples of India displayed goodwill and good feeling towards the foreigners. The national spirit was distinctly friendly and hospitable. The Xenophobia so rampant in China was conspicuously absent and what was true in the sixteenth century is unfortunately less true to-day. The spirit of India was frank and prone to welcome.

These travellers, or at least the majority of them, arrived in India at a remarkable moment. A new and foreign government had been recently established and a dynasty of conquerors exercising imperial power was on the throne. Under such circumstances it would not have been surprising if Europeans had been regarded with suspicion and shown little tolerance. happened that the early Mughal Emperors were men of remarkable talent with broad views and a freedom from religious prejudice very exceptional among Mohammedans. so tolerant in religious matters as to show an individual tendency even towards Christianity. In this impartiality they presented a striking contrast to the Christians themselves; for between Catholics and Protestants there was an unbridgeable gulf of antipathy admitting of neither tolerance nor concession. It may have been this very exhibition of Christian bigotry that arrested the tendency of Akbar and his immediate successors to adopt in part or altogether the tenets of that creed brought so persistently under their notice by the Portuguese Jesuits and other emissaries of the Church of Rome. For it is only fair to state that the English and the Dutch, representing the new or Protestant division among Christians, displayed no desire to proselytise. It is interesting to speculate what might have resulted in India if their efforts had been successful. If that conversion had taken place it would have had an extraordinary effect on the India of the present day and would have prevented the communal animosity now so prominent. The history of India might have been totally different. But this was not destined to be.

Having reached India first by land and then by sea what did these early travellers find? First of all, they found a vast and productive country full of remarkable scenery which had all the charm of novelty. This country, which after all was not so very different from their own, being only more favoured in climate and soil, was inhabited by people with the same essential attributes of civilisation as themselves. The population was clearly amiable, hospitable and pacific. So far as the people went the new-comers soon discovered that they need have no misgivings. Trouble if or when it should develop would not come from that direction.

But after all, strangers in a new country must secure recognition not so much from the people as from the established government. By a favourable concatenation of circumstances the highest representatives of that government were disposed, in the initial period of European intercourse at least, to be benevolent and accommodating. This may very possibly have been due to no better reason than that the Mughals regarded the English travellers, with their requests for favours and privileges, as contributing to their own greatness, and as proving how far their reputation had spread. The travellers saw enough to justify that reputation. They found a magnificent court with a severe and imposing etiquette different from the usages of Europe but still in its ceremonial aspect not inferior to their own. There was a more lavish display of wealth: pomp and parade were on a larger scale; and jewels with gold and silver were employed with a prodigality beyond the experience of any Europeans. As the minds of men are influenced by what they see we need not be surprised that these early travellers carried home tales of the ineffable splendour and incalculable wealth of the Mughal Emperors. From them Milton borrowed some of his finest imagery:

[&]quot;Where the gorgeous East with richest hand Showers on her kings barbaric pearl and gold,"

If the Mughal Emperors had desired to impress the visitors with a sense of their magnificence they succeeded to a degree far beyond their knowledge. It took many generations to discover that behind the splendour and the majesty of the Empire there was little real power but an ever increasing canker of corruption and decay.

It must be conceded, however, that the reigns of the first Mughal Emperors were marked by considerable literary activity. The man of letters and the poet were in high favour at the Courts of those rulers. The great Emperor Babur set the example by compiling his own memoirs, which form one of the most remarkable human documents in any language. Persian poets, ready to supply distichs and elegies at brief notice, were prominent among the pensioners that flocked round the rulerwho found relaxation from the exhaustion of warfare in listening to their half-flattering, half-admonitory strophes. Thus the Persian language ousted the older Arabic from the Moslem Court and acquired a pre-eminence which endured for three centuries. The second phase of this literary activity was even more remarkable than the first, for Akbar the Great decided to give the record of his reign by the pen of another, and he found the ideal historian in his Chief Secretary Abul Fazl. It is interesting to note that the early English travellers arrived in India towards the close of this epoch of literary intensity, but there is no reason to believe that Hawkins or Sir Thomas Roe ever heard of the Ain-i-Akbari, and certainly they were not handed copies of that work for presentation to their Sovereign, the sapient James I, as would have been done in more modern times. Although the accounts given by the English travellers are of secondary importance, they were free from Mughal influence and rested on their own powers of observation. The detachment of their impressions as foreign travellers constitutes the value of their reports, which are indispensable for a correct estimate of the Indian authorities of the period and also enable us to estimate the value of those other impressions recorded by the Jesuit Fathers concerning the Mughal Court and administration. It is by this comparison and combination that a faithful picture can be obtained of the state of India under the Mughal Emperors when the English began their enterprises within the realm.

HARIHAR DAS

INDIAN BAZAARS

All night they travel 'neath the stars To reach these Indian Bazaars Down from the dark and ancient plains They come and brave the tropic rains. The sandy plains left far behind A Mecca for their goods they find They spread upon the dusty floor Soft carpets made in Mirzapore Bokhara silks in strange designs Praying mats with holy signs, Amber beads on silken strings, Brooches, clasps and turquoise rings, Deadly knives with hafts of jade Some far-off skilful craftsman made. They mix the priceless with the cheap All in a gaudy tangled heap O! What is the lure and strange delight With which, in the silent tropic night I gloat o'er the daggers, silks and jars, Bought from those Indian Bazaars?

LELAND J. BERRY

SOUTH AFRICAN DIPLOMACY AND INDIA

With the appointment of the Rt. Hon. Shastri, as the High Commissioner of India to the Union of South Africa, Indo-South African relations have entered into a new and significant stage. From the international point of view, its importance is second only to India's participation in the League of Nations. From the standpoint of inter-imperial relations of India within the British Empire its importance is even superior to the inauguration of the appointment of High Commissioner of India in London; because the High Commissioner of India in England is not clothed with the power of transacting any diplomatic business between India and the British Empire, but he generally acts as purchasing agent for the Government of India in England and performs such tasks which the Secretary of State for India and India Office do not regard to be important enough to be transacted by them; whereas the High Commissioner of India in the Union of South Africa will have to tackle India's foreign relations with South Africa and the problem of Indian rights and Indian Immigration. In this article, I wish to discuss some phases of South African diplomacy and their possible bearings in future Indo-South African relations.

(I)

A little over twenty-five years ago the Boers fought desperately to uphold their independence against British aggression. In the battlefields they were outnumbered by British forces; and they were finally subjugated through the application of the policy of starvation under the cover of so-called "concentration camps." The Boers lost the war; but they under the guidance of astute leaders, as General Botha, General Smuts and others, immediately began the work of "transforming the defeat into a glorious victory." Through diplomacy the South African people, the Boers, the Dutch and others—are marching to their

destiny of independence, as a part of the so-called British Commonwealth of Nations, with full right to secede from the British Empire whenever they choose to do so.

As things stand to-day the people of South Africa are virtually independent. The British people who have settled in South Africa cannot rule the country without the cooperation of the Boers—the Dutch; and it is the Boers who are ruling the country. It will be worth-while for Indian satesmen to minutely study the many-sided activities and carefully worked-out plans of Boer leaders which have resulted in the virtual Boer conquest of the British colonies in South Africa without firing a shot. I shall try to mention a few outstanding points regarding this transformation.

- 1. Just as soon as the Boer leaders realised that they could not fight the British and preserve their independence, they agreed to surrender not as slaves but with the understanding that they would not be deprived of their essential rights as free people, living within the British Empire.
- 2. Immediately after the conclusion of the Boer War, men like General Botha and others began to work so that the Boers should secure full autonomy within the British Empire, as Canada enjoyed at that time. During the ministry of Sir Campbell Bannerman, the Boers were given this privilege; and the former enemies of Britain who led armies against British forces, assumed partial political ascendancy in the affairs of the state.
- 3. Then came the movement for the federation of British States in South Africa—Cape Colony, Natal, Transvaal and Orange Free State—into the South African Union. Many British statesmen thought that by promoting the federation scheme, they would, in any case, be at least able to hold the balance of power and preserve imperial interests in South Africa. The South African statesmen agreed to the formation of the Union; but they also planned to work that the Union would be ruled by South Africans for South African interests first and imperial interests afterwards.

- 4. All the South African leaders, irrespective of party affiliations, were for South African independence. They worked for the same cause although they differed in their tactics. Botha-Smuts party followed the path of moderation and co-operation with the British Africans, whereas the other South African leaders like General Hertzog and others took a more radical stand and immediate emancipation of South Africa from British control.
- 5. Under these circumstances, the British Africans felt that it was their duty to side with the Botha-Smuts group, so that the policy of moderation would prevail against the policy of the extremists. (It is like Lord Morley's policy of "rallying to the moderates of India against the Indian extremists.") This peculiar internal condition and the growing seriousness of the international situation, leading to the Anglo-German War (the World War), forced the British Imperial authorities to cater to the Botha-Smuts group. These farsighted South African statesmen, advocates of moderation, did not lose sight of the goal of achieving South African independence; however, they first utilized their prestige and position to consolidate the status of nationhood of the Union of South Africa within the British Empire.
- 6. When the World War broke out, the British Government had to depend upon the Botha-Smuts group of South Africans, for the protection of British possessions in South Africa, from internal insurrections and external attacks. Germans encouraged revolt in British South Africa, just as the British enticed the Arabs to revolt against the Turkish rule. The revolt in British South Africa was led by uncompromising idealist Boer leaders; but it was crushed by Botha's forces. Before the World War was over, most of the German possessions adjoining the British territory in South Africa was conquered by the Boers; and the Botha-Smuts group virtually became the protector of British power, prestige and realm in South Africa.

- 7. These Boer leaders fought against the Germans, not to promote British imperial interest, but to secure German possessions, adjoining the South African Union as parts of their own South African Empire. This object became evident when General Smuts invented the ingenious "Mandate system" to acquire German colonies without formally annexing them. General Smuts inspired the Canadian as well as Australian statesmen to assert their diplomatic autonomy in an international scale by signing the Versailles Treaty and entering the League of Nations as free and independent nations.
- 8. When America refused to enter the League of Nations, General Smuts felt disturbed; but he encouraged the Canadian statesmen to start independent treaty-relations with the United States. He was anxious that Canada, South Africa, Australia as well as New Zealand should participate in the Washington Conference on Limitation of Armaments. He was one of the promoters of the Anglo-Irish settlement by the creation of the Irish Free State, which, according to his ideas, should follow Canadian and South African policy of assertion of the Dominions in international affairs.
- 9. The South African Government asserted its independence even in imperial politics, when it refused to spend South African money in the project of enlarging the Singapore Naval Base and also when it refused to respond to Lloyd George's call to arms against Turkey.
- 10. The Government of the Union of South Africa continued the campaign against the Indian interests in South Africa, as the Governments of Natal, Transvaal and other states did before. This policy of the Union Government was due not merely to promote the doctrine of "white supremacy" in South Africa, but to assert that South Africa was the sole mistress of her internal affairs and would not sacrifice her own interests to please the British imperial authorities. Thus it was the Government of South Africa which tenaciously upheld its rights so as not to agree to respect Indian demands and

rights in the Imperial Conference. For this reason alone and not for any love for India men like Sir Valentine Chirol, Earl Reading and others condemned the attitude of the South African Government.

- 11. Although General Smuts' Government was consistently promoting the ideal of South African nationhood, the radical advocates of South African independence came in power under the leadership of General Hertzog. General Hertzog's coming to power has the significance that the majority of the voters in South Africa feel now that after twenty-five years of diplomatic moves, the time has come when South African Empire should assert its independence with greater readiness.
- 12. General Hertzog's government has done a great deal to promote South African independence. But I shall note its most outstanding achievement. General Hertzog's insistence of assuming equal partnership in formulating British foreign policy by the Dominions—which are free and independent nations, associated with the British Empire by their free will and not through any coercion and are free to leave the British Empire, if they wanted to do so—brought about the momentous decision of the last Imperial Conference which has virtually changed the constitution of the British Empire, and has augmented greater autonomy, if not full sovereignty of the Dominions, as nations.
- 13. The South Africa Flag Bill and the efforts to eliminate the "Union Jack" from the national flag of the Union of South Africa is another expression of assertion of radical nationalism and independence.
- 14. To-day the South African Government not only controls its own legislative, administrative and financial affairs but it also controls its national defence. A Reuter's despatch from Cape Town, dated 31st May, 1927, shows that the South African Government is inaugurating a special Department of Foreign Affairs. The despatch reads as follows:
- "Dr. H. D. F. Bodenstein, Professor of Roman Dutch Law at Stellenbosch University, and formerly Assistant Editor of Die Burger,

has been appointed Secretary of Foreign Affairs. The new Department, which is under the Prime Minister, will be opened on July 1."

15. During the World War, the British Government, in violation of the established principles of International Law, confiscated private property of German citizens who were residents or in business in British territory. characteristc sagacity, the Boer statesmen opposed the idea of confiscation of German property, as a token of good will to the Germans, who sympathised with the Boers, during their struggle-the Boer War-for independence against British Imperialism. This act of supposed generosity of the Boer statesmen will serve as a great political asset. General Hertzog has recently declared that the former German South West Africa should be incorporated as the fifth province of the Union of South Africa. The bill drafted for the purpose will afford the German residents in South West Africa full control over the local government of the new province. If this policy of incorporation of German South West Africa as a part of the South African Union is carried out—there is every reason to believe that it will be done in near future—then the radical South African nationalists will have the support of the German population in the scheme of promoting independent South Africa. Of course, British Africans (English-speaking ones) will try to devise means so that they would not be reduced to a powerless insignificant minority opposed and ruled by a Dutch-German majority. However, it is clear that the Boers are to-day ruling over British South Africa; and their programme is radical nationalism and the establishment of an independent South African Empire, nominally attached to the British Commonwealth of Nations, but for all practical purposes enjoying full sovereignty and independence. It may be confidently asserted that any programme which will minimise the demand for assertion of South African nationalism will be defeated by the South African people.

It is generally regarded by Indian statesmen that the

attitude of the South African Government to have an agreement on Indian Immigration question, through a direct negotiation with India is a very laudable one and actuated by the motive of settling the dispute and to promote imperial interests. But we are inclined to think that the real motive behind this piece of diplomacy is to set a new precedent on the method of settling disputes between South Africa and any part of the British Empire. It is to establish a precedent that South Africa will not be bound by the decisions of "Downing Street" and in future all relations between South Africa and any other country will be settled through direct negotiations carried on by the Department of the Foreign Affairs of the Government of the Union of South Africa.

In connection with the recent agreement arrived at between the Government of South African Union and the Government of India, I must say that if the Indian statesmen are depending upon this agreement as a guarantee towards maintenance of Indian rights, then they are living in a "fool's paradise." First of all there are many loopholes in the text of the agreement and there will arise future disputes about the interpretation of various clauses, particularly "what constitutes standard." Secondly, the Indian public should European realize that the agreement is based upon the abandonment of Indian rights in South Africa. Mr. Pillai and Mr. P. S. Iyer of Durban and Mr. Joshi of Johannesburg are perfectly right when they assert that Dr. Malan, representing the South African Government, "got all he desired under the Class Areas Bill, and a little more, in order to make South Africa a white man's country." I have repeatedly advocated that India's standard of dealing with any foreign nation on Immigration or any other question should be based on the principles of Racial Equality and Reciprocity. Instead of asserting Racial Equality and securing Reciprocal Treatment, the Indian government has agreed to so-called voluntary Repatriation which is in reality compulsory in practice, so far as financially poor Indians are concerned. Furthermore, the Indian Government have accepted the Colour Bar Act, Industrial Conciliation Act and Wages Act which are based on the principle of an "All White policy." The promises held out for the uplift of Indians educationally are worse than doubtful, because primary education is in the hands of the Provincial Council and the legislature is not likely to sanction any expenditure for the purpose. The declaration of Dr. Malan is also to be noticed that, the Union Government has not in any respect or to any extent, surrendered their freedom to deal legislatively with the Indian problem whenever and in whatever way they "deem necessary and just."

Among other things, what the responsible and far-sighted Indians in South Africa want is "Removal of all racial discrimination contained in several legislations, harshly operating against, and immigration disabilities now suffered by, Indians." The Indian View editorially regards the solution arrived at by the so-called Indo-South African Agreement "as another blunder" and says the following in the issue of April 22, 1927:

"On various occasions the so-called agreement between this Union and India has been contended in these columns as of no advantage to the community in general, inasmuch as the basis of the same is voluntary Repatriation now masquerading under the high-sounding phrase" Stateaided. Emigration." We hope every Indian will bear in mind that it is nothing more than the will o' the wisp, and is more a snare than a tangible effort to solve the problem which, every right-thinking Indian and European hope will be eventually adjusted to our mutual advantage. Much as the Europeans may accuse Dr. Malan of having bartered away their rights, facts on the other hand go to show that it is the Indian that has been "sold" and there can be no more convincing proof that the latest attempt of repression as evidenced by Dr. Malan's New Bill; a Bill which aims at taking away existing rights, rights that have been previously enjoyed and for which the community has suffered considerably... As an active factor in the Indian community of this Union, we have no hesitation in forecasting that a few years hence this settlement will be the means of depleting the community here, and in fact the very name of Indian will have disappeared..."

On the other hand the real spirit of the one-sided and so-called Indo-South African Agreement has been well described in *The Star* of Johannesburg of April 12, 1927, in the following passage:

"The Chamber of Commerce (of Potchefstroom) has received a reply from the Minister of Interior to the recent protest made against the agreement entered into between the South African Government and the Government of India. The whole object of this agreement, Dr. Malan wrote, is to get as many Indians repatriated as possible, and the energies of the conference were bent in that direction—namely to draw up a satisfactory scheme with the help of the Government of India. All other points were subordinate to this. The Agreement Is Not An Agreement In The Usual Sense of The Term. The Union Government Did Not Bind Itself in any Way With Regard To Future Legislation It Likes If The Repatriation Proposals Not Working Satisfactorily..."

Indians as possible from South Africa by any means was the real spirit of the Conference and the solution of the Repatriation scheme. It is clearly stated above that if satisfactory results of getting rid of Indians are not arrived at by the present scheme, the South African Government will undertake further legislation for that purpose; and from the standpoint of the South African Government the Agreement is not binding as usual agreements are: just as the Gandhi-Smuts agreement was broken by the South African Government to suit its internal and external policy, so later on the South African Government will disavow the spirit of the agreement, and if necessary, for the sake of formality, will demand new negotiations for the revision of the pact to the detriment of Indian interest.

The South Africans, advocates of White Supremacy, will play the same game as they have done in the past, to achieve their present independent status. One group will show apparent conciliatory attitude and try to secure a section of Indians to side with them. In this they have already succeeded—Hon. Habibulla, Hon. Shastri and their adviser Rev. Andrews are now supporters of the Hertzog Government's anti-Indian policy,

Then the other group of South Africans will make threats and continue to ill-treat the Indians and ignore the agreement and demand its revision and further drastic legislation. After a while they will make the present agreement as an issue in an election campaign and denounce it as a betrayal of "All White Policy." Just as the Hertzog Government will change, a new and more drastic policy against Indians will be adopted. To prove the above conclusion, I quote a portion of a letter from a responsible Indian in which he describes the new development:

Let me say that the new bill has come up with compound interest... To-day the new Bill threatens the very existence of thousands of Indians in the country. The petty injustices are innumerable...The Transvaal Indians have practically seceded from the South African Congress.

In all parts of South African Union a new anti-Indian agitation is in full swing. According to the report printed in Rand Daily Mail (Johannesburg), March 18, 1927, Colonel H. J. Pretorious, representing South African Party of Witwatersberg, in a parliamentary debate made the following significant remarks:

There was the danger, said Colonel Pretorious, that Asiatics would open shops or in near locations, in fact, they were actually doing so. As soon as the licensing courts stepped in and refused to grant licences they would provoke a conflict with the Indian Government. Yet he would rather provoke a conflict than allow the present situation to continue. The crisis would come very soon, because the Asiatic was not satisfied and was demanding a say in municipal and other public affairs. Col. Collins had correctly represented the Transvaal feeling that the rights of the people of South Africa had been sacrificed (by solution arrived at by Dr. Malan).

The above represents the opinion of some of those who are supposed to be moderates in South African politics. None should be deluded by the supposition that it is the Dutch or the Boers who are at the root of the anti-Indian agitation in South Africa. Although the British Government fought the Boers and held up before the world that Britain could not tolerate the ill-treatment accorded to the Indians in Transvaal, the treatment

accorded in British colonies of Natal, Cape Colony and other places was no less abominable. The Dutch, the English, the Irish, in other words, the Europeans—the majority of them—are pledged to the anti-Indian or anti-Asian policy. rare exceptions and only a few people wish to see justice done to the people of India in South Africa and their rights preserved. From the days of indentured labour in Africa, through the days of the Boer War, the World War and after, the history of Indo-African relations has been persecution of Indians and depriving them of their just rights. This will continue, in spite of all "agreements," unless the people of India can set their own house in order and become independent as the South African people When the Indian nation will become a sovereign power, controlling its internal and external affairs and national defence, then South African Union and others will treat the Indians with some respect and consideration. In the present-day world there is no justice for enslaved and weak people.

TARAKNATH DAS

SOME TENDENCIES OF MODERN POETRY

THE NATURAL AND SUPERNATURAL.1

It is not without some fear I take up such a vexed subject as contemporary English poetry. What gives me courage is that I do not come balance and scales in hand and spectacles on nose like the jealous critic, but rather as a humble worshipper at the altar of poesy. It will therefore be my endeavour to understand rather than criticise, for otherwise argument only begets argument and we are no nearer to our goal, which is surely true appreciation. And at last with Omar Khayam we have to say,

"Myself when young did eagerly frequent
Doctor and saint and heard great argument
About it and about. But ever more
Came out by the same door wherein I went."

For like the Deity poetry defies definition. Even the wisest critics amongst us have failed when they have attempted to define poetry. The fact is the more we follow her with our meagre measuring rods, the more she eludes our pursuit. We seek her on earth and we find her smiling amidst the stars. We soar to divine heights, and lo! she is not there. We find her lurking like a mischievous child behind a pebble or a little way-side flower. Not only will poetry not be defined, but she will not be confined. Thus when Wordsworth tried to confine her within the limits of his maxims, she fled in terror leaving only the bare husk.

I do not mean by this that Poetry does not follow any laws. She does follow one law, and that is the law of her own being.

¹ Paper read at the Lucknow University under the Presidency of Dr. Cameron, the Vice-Chancellor.

But this law is as subtle as the life force within us and as varied. We cannot reduce it to terminology but we know when it is there though it may find a hundred different manifestations. It may come to us in the bare simplicity of tragedy as when Beatrice in *Cenci* says:

"Give yourself no unnecessary pain
My dear Lord Cardinal, here mother tie
My girdle for me, and bind up this hair
In any simple knot; ay, that does well,
And yours, I see is coming down. How often
Have we done this for one another. Now
We shall not do it any more. My Lord
We are quite ready. Well, 'tis very well.'"

Or it may come clothed in all the luxury of grief as presented to us by W. B. Yeats in Countess Cathleen.

"Bend down your faces, Oona and Aleel,
I gaze upon them as the swallow gazes
Upon the nest under the eave, before
She wander the loud waters. Do not weep
Too great a while, for there is many a candle
On the High Altar though one fall. Aleel,
Who sang about the people of the raths
That know not the hard burden of the world,
Having but breath in their kind bodies, farewell!
And farewell, Oona, who spun flax with me
Soft as their sleep when every dance is done.
The storm is in my hair and I must go."

Or it may come wafted on the airy wings of fancy and song as in

"Full fathom five thy father lies;
Of his bones are coral made;
Those are pearls that were his eyes:
Nothing of him doth fade,
But doth suffer a sea change
Into something rich and strange.

Sea nymphs hourly ring his knell:— Hark! now I hear them Ding, dong, bell."

Such a piece though sheer poetry will not submit itself to any critical ruling. Its justification lies in the sheer joy of its own being. Contrast this with Milton's staider numbers and more exalted strain.

"When I consider how my light is spent,
Ere half my days, in this dark world and wide,
And that one talent which is death to hide,
Lodged with me useless, though my soul more bent
To serve therewith my Maker, and present
My true account, lest he returning chide,
Doth God exact day labour, light denied?
I fondly ask:—But patience to prevent
That murmur soon replies, God doth not need
Either man's work or his own gifts; who best
Bear his mild yoke, they serve him best, his state
Is kingly; thousands at his bidding speed
And post o'er land and ocean without rest:
They also serve, who only stand and wait."

This too is poetry, exquisite poetry, but of a texture how different. Yet there is a fundamental similarity and that is, that Milton's sonnet like Shakespeare's dirge is true to the law of its own being. It is a far cry from this to Walter de La Mare's

"...Three jolly gentlemen, In coats of red, Rode their horses Up to bed,

> Three jolly gentlemen Snored till morn Their horses champing The golden corn.

Three jolly gentlemen
At break of day,
Came clatter, clatter down the stair
And galloped away."

But there is a simplicity and inevitableness in this that lifts it to the realm of poetry.

I have deviated from my subject to clear your minds of the cobwebs of existing prejudices. I do not want you to judge modern poetry from this point of view or that, but from the only standard we have a right to impose, and that is whether it does, or does not fulfil itself.

There is a confused notion in some quarters that Georgian poetry has broken entirely with past tradition. But this is true only of a small group of poets who are experimenting with new forms according to certain maxims and whose poetry if it survives will only survive as literary phenomena. The great bulk of contemporary poetry has its feet firmly fixed in the literary traditions of the past.

No review of modern poetry can be complete without some account of "The Imagists," as these experimenters in verse style themselves, and though they represent only a small school, we cannot ignore them in modern poetry just as we cannot ignore the impressionist school in modern painting. For it is not the conscious and literal following of their principles, but its unconscious influence that matters. Wordsworth when he consciously followed the principles laid down in the Preface to the Lyrical Ballads, wrote poetry that did not matter, but the Preface to the Lyrical Ballads had nevertheless a deep significance for the poetry of the Romantic Revival. The Imagists are therefore entitled to their due, so let me give you their manifesto as published in the pages of poetry by Messrs. F. S. Flint and Ezra Pound, some dozen years ago.

"I. An image is that which presents an intellectual or emotional complex in an instant of time. The instantaneous presentation of such an image gives the sense of liberation from limits of time and space and that sense of sudden growth, which we experience in the presence of great art. It is better to produce one image in a lifetime than to produce a voluminous work.

- II. Treat the thing that is the image directly whether it is subjective or objective. Go in fear of clastraction, that is, use concrete images having the hardness of clear-cut stone.
- III. Use absolutely no word that does not contribute to the presentation. Use either no ornament or good ornament. Do not mop up the particular decorative imagery of some one or two poets that you happen to like.
- IV. Study Sappho, Catullus, Villon, Dante, Hiene, Gautier (sometimes) and Chaucer specially.
 - V. Do not attempt philosophical or descriptive poetry.
- VI. Compose in the sequence of the musical phrase and not in the metronome.
- VII. Study cadences, the finest you can discover, preferably in a foreign language, so that the meaning of the words may be less likely to divert your attention from the movement. Saxon chains, Hebredian folk song, Dante and the lyrics of Goethe and Shakespeare are specially recommended. Study the possibilities of the verse form as the musician studies musical construction. The same laws govern and you are bound by no others.

In other words, the recognised metrical standards in English do not hold."

Such a mixture of shrewd sense and sheer nonsense can scarcely be imagined. If carried to their logical conclusions the objections to these dictums are manifold. An isolated image can scarcely lead to an emotional complex, nor can you relate your images into a vision of life without abstractions. Then there are obvious inconsistencies. If we compose in musical phrases and not in the metronome, we must obviously write verse libre, but how can the seven abovementioned poets help us in writing better free verse than others.

It is true that when these precepts are followed to the letter a result is attained which does not conform to the metrical standards of English. I would go further and say that the result attained, be what it may, is not poetry. I shall illustrate this from a few lines from an American poetess who is supposed by her own school to be its best exponent:

"Your stature is modelled
With straight tool edge,
You are chiselled like rocks
That are eaten into by the sea,
You are white as a limb of cypress
Bent under a weight of snow.
The narcissus has copied the arch
Of your slight breast,
Your feet are citron flowers
Your knees cut from white ash,
Your thighs are rock-cistus."

Here, if you like, is an experiment in method. You have the single images but it does not lead to any emotional complex. There are no abstractions but the concrete images lend a hardness not of cut stone but the monotonous beating of a hammer in a smithy.

This manifesto of the Imagists is however of value because it voices the reaction against the tradition of smooth pretty versification in the Victorian era, just as Wordsworth's preface to the Lyrical Ballads is valuable as voicing the protest against the artificiality of language and formality of versification in the eighteenth century. Victorian poetry was clogging the mouth with too much sweet and a reaction was necessary to lend sinew and freshness to English verse. Even during the Victorian period we have a reaction in the classicism of Arnold and the intellectualism and rugged simplicity of Browning. Both these poets would have heartily supported the Imagists in their dictum. "Use absolutely no word that does not contribute to the presentation. Use either no ornament or good

ornament. The Pre-Raphaelites show a reaction in another direction, i.e., against the pseudo-poetical feelings of the Tennysonian tradition and come to grips with genuine passion.

The revolt against the Tennysonian traditions was not accomplished however till the advent of the poets of the 'nineties.' These, once for all, bade good-bye to the poetic rusticity of Tennyson and set their scenes amidst the noise and din, the dust and smoke of towns. Laurence Binyon in London Visions Stephen-Phillips, Oscar Wilde, Earnest Dowson, Lionel Johnson, all paint the life of cities. But the most perfect expression of this reaction is to be found in a poem entitled London by Manmohan Ghose, an Indian poet who was amongst the company:

"Farewell, sweetest country; out of my heart, you roses, Wayside roses, nodding, the slow traveller to keep.
Too long have 1 drowsed alone in the meadows deep,
Too long endured the silence nature espouses.
Oh? the rush, the rapture of life! throngs, lights, houses,
This is London. I wake like a sentinel from sleep.

Stunned with the fresh thunder, the harsh delightful noises, I move entranced on the thronging pavement. How sweet, To eyes sated with green, the dusty brick-walled street! And the lone spirit, of self so weary, how it rejoices To be lost in others, bathed in the tones of human voices, And feel hurried along the happy tread of feet.

And a sense of vast sympathy my heart almost crazes,
The warmth of kindred hearts in thousands beating with mine.
Each fresh face, each figure, my spirit drinks like wine,—
Thousands endlessly passing. Violets, daisies,
What is your charm to the passionate charm of faces,
This ravishing reality, this earthliness divine?

O murmur of men more sweet than all the wood's caresses, How sweet only to be an unknown leaf that sings In the forest of life 'Cease, Nature thy whisperings! Can I talk with leaves, or fall in love with breezes? Beautiful boughs, your shade not a human pang appeases This is London. I lie, and twine in the roots of things.".

But this reaction against the poetical rusticity of the Tennysonian tradition led to a truer appreciation of nature and country And this takes me right into the centre of my subject, for modern nature poetry is one of the finest aspects of contemporary verse. I shall not say that individual poems have not been produced at other periods of English literary history which may favourably compare with, or even surpass the best nature poems of to-day. But I think I can safely say that never before has there been such a great output of nature poems of so uniformly a high standard; never before has there been such a pure delight in nature for her own sake as in contemporary English poetry. The Elizabethans too often used nature as a background or as a foil for their loves, or for creating a pastoral atmosphere. We find this tradition continuing with a few exceptions right up to the period of the Romantic Revival. Both Milton and Dryden have a bookish knowledge of nature. Even Marvell who shows, perhaps, a greater appreciation of nature than most poets of the period often surcharges his natural descriptions with the atmosphere of his own thoughts. The eighteenth century descriptions of nature are stiff reflections of conventional classical nature poetry. It is only with the Romantic Revival that we get a true appreciation of nature. The two names that rise most prominently in our minds are those of Wordsworth and Keats. But Keats cannot always get away from the note of human joy or suffering, or discard poetic imagery; and Wordsworth's appreciation is all too often marred by moral or philosophical reflections or is full of reaching out towards a vague pantheism. But not so the typical nature poet of to-day. His heart is full of sheer joy in the natural objects themselves. He needs no poetic ornamentation to enrich the effect; and this lends a reticence, a forcefulness and an inevitableness which results in poetry of a very high order. A very good illustration of what I have been saying is afforded by two little poems—one written by Wordsworth and the other by W. H. Davies—perhaps the finest nature poet of to-day. The source of inspiration in both

cases is the Rainbow. The first reaction of both is the same, that is, a sense of deep joy. But whereas in the case of Wordsworth the sense of joy leads to a moral reflection, in W. H. Davies the joy bubbles over like that of a little child irradiating everything around him. Wordsworth's lines run thus:

"My heart leaps up when I behold
A rainbow in the sky:
So was it when my life began,
So is it now I am a man,
So be it when I shall grow old
Or let me die.
The child is father of the man
And I could wish my days to be
Bound each to each by natural piety."

Contrast this with the contagious delight of Davies:-

"Sweet Chance that led my steps abroad
Beyond the town, where wild flowers grow—
A rainbow and a cuckoo, Lord,
How rich and great the times are now!
Know, all ye sheep
And cows, that keep
On staring that I stand so long
In grass that's wet from heavy rain—
A rainbow and a cuckoo's song
May never come together again;
May never come
This side the tomb."

Opinion may differ as to which is the greater poem. But there can be only one opinion as to which is the better nature poem. I do not deny that Wordsworth has written better nature poetry than this, poems which waft the pure mountain air to us and reveal craggy cliffs and wooded uplands. But what I want to point out is the fundamental difference of outlook on nature between the poets of to-day and the poets of the Romantic Revival and the Victorian era, though writing with their eye on the object, are always looking

beyond. Again, the poets of to-day delight in every detail and are not content with giving atmospheres.

"How sweet this morning air in spring,
When tender is the grass and wet!
I see some little leaves have not
Outgrown their early childhood yet;
And can no longer hurry home,
However sweet a voice cries "Come."

Here, with green Nature all around,
While that fine bird the skylark sings;
Who now in such a passion is,
He flies by it and not his wings;
And many a blackbird thrush, and sparrow,
Sing sweeter songs that I may borrow.

These watery swamps and thickets wild—Called Nature's slums to me are more Than any courts where fountains play, And men-at-arms guard every door; For I could sit down here alone, And count the oak trees one by one."

The last couplet shows the whole modern attitude towards nature. We see, too, how the poet has rid himself of all superfluous imagery.

Not only is modern poetry rich in details but also rich in atmospheres. In two stanzas Hilaire Belloc gives us the whole atmosphere of the south country:

"But the men that live in the South Country Are the kindest and most wise,
They get their laughter from the loud surf,
And the faith in their happy eyes
Comes surely from our sister the Spring
When over the sea she flies;
The violets suddenly bloom at her feet,
She blesses us with surprise.

I never get between the pines
But I smell the Sussex air;
Nor I never come on a belt of sand

But my home is there.

And along the sky the line of the Downs
So noble and so bare."

"In nothing," says John Drinkwater, "did the Victorian genius so justify itself as in its love poetry." If the same sort of estimate were made of Georgian poetry, I think in nothing would it justify itself so much as in the subtlety of its imaginative quality. Poetry seems once more to have attained its childhood. I have shown how the Georgians have been uniquely successful in looking at nature with the fresh eyes of a child without any thought behind. They share, too, with the child his sense of the mystery of things. And ever and anon thoughts of other lives come hauntingly in the poet's mind:

"The waves came shining up the sands
As here today they shine
And in my pre-pelasgian hands
The sand was warm and fine.
I have forgotten whence I came
Or what my home might be
Or by what strange and savage name
I called that thundering sea.
I only know the sun shone down
As still it shines to-day
And in my fingers long and brown
The little pebbles lay."

This sense of the mystery of things existed in English poetry before. We get it in the old Saxon poetry and the old English ballads. But the Renaissance with its enlightened paganism drove this spirit out and we only get a glimpse of it here and there. Blake, however, recaptures it. Like that of a little child Blake's mind was a phantasmagoria of angels, demons, strange beasts and birds. The silence of woods is full of voices for him, and airy forms flit around him. The little child, who ran home to his father and stated with simple conviction that he had seen an angel, never died within him. We see it reflected

in his art and in his poetry. Blake's spiritual successor was Coleridge, There is not the same childlike simplicity about his supernatural touches, but he is, perhaps, a better master in producing eerie effects. From the moment when the old mariner with his lean brown hand and bright eyes bursts on the wedding scene to the end of the poem, the sense of mystery never leaves us. Dante Gabriel Rossetti's mind was stored with the superstitions of mediaevalism and they find haunting echo in his poetry. "Sister Helen" most perfectly illustrates Rossetti's genius in this direction.

The note of the supernatural in contemporary English poetry owes most, however, to the Celtic Renaissance. Celtic spirit, nourished for centuries on the primitive legend and superstition of a dreaming peasantry, long divided from English, by its adhesion to Gaelic speech, first finds expression in the poetry of J. C. Mangan, and attains perfection in that of W. B. Yeats. The most everyday matter goes to the making of this enchantment as in "The Land of the Heart's Desire." Again, Yeats learns a legend in Kerry, and the result is "The Ballad of Father Gilligan." The spirit of Celtic mysticism haunts the minds of some of the best contemporary English poets. Walter de la Mare when asked if he believed in ghosts and spirits said with utmost simplicity that he firmly believed in them. And the element of the supernatural haunts his poetry and lurks behind his lines. I shall quote to you from the well known poem "The Listeners" in order to show you how beautifully he handles this kind of poetry:

'Is there anybody there?' he said.
But no one descended to the Traveller;
No head from the leaf-fring'd sill
Leaned over and looked into his grey eyes
Where he stood perplexed and still.
But only a host of phantom listeners
That dwelt in the lone house then
Stood listening in the quiet of the moonlight

To that voice from the world of men:
Stood thronging the faint moonbeams on the dark stair,
That goes down to the empty hall,
Hearkening in an air stirred and shaken
By the lonely Traveller's call.
And he felt in his heart their strangeness,
Their stillness answering his cry,
While his horse moved, cropping the dark turf,
'Neath the starred and leafy sky;
For he suddenly smote on the door, even
Louder, and lifted his head,
'Tell them I came, and no one answered,
That I kept my word,' he said.''

It seems an anomaly at first sight why when science is penetrating into so many of the mysteries of nature, poetry should still be singing so hauntingly of the mystery of things. The raison d'être both of this poetry of the supernatural as well as of the science of spiritualism is, perhaps, to be found in this terror of losing hold of the mystery of life and leaving us only mundane reality, the striving after the something beyond which is the most precious gift of the human mind.

But apart from the definitely supernatural element in contemporary poetry, there is a fine imaginativeness in which the chief strength of Georgian poetry seems to lie. If imaginativeness were the only criterion of poetry, the Georgians would undoubtedly win the laurel. But in our strength lies the source of our weakness—in the case of nothing is this so true as in the case of poetry. Thus if we examine the various periods of English poetry we shall find this to be true. The reaction against the Romantic movement came when it became futilely romantic. The reaction against the eighteenth century poetry came when it became mere form without spirit. The degeneration of metaphysical poetry into mere tour de force of the mind-led to its decay. So one day this fine imaginativeness will lose its spirit and become a literary trick. The

alarm is already raised in some quarters. But let us enjoy it at its best.

"When you are old and grey and full of sleep, And nodding by the fire, take down this book, And slowly read and dream of the soft look Your eyes had once, and of their shadows deep;

How many loved your moments of glad grace, And loved your beauty with love false or true, But one man loved the pilgrim soul in you, And loved the sorrows of your changing face.

And bending down beside the glowing bars Murmur, a little sadly, how love fled, And paced upon the mountains overhead, And hid his face amid a crown of stars."

Any good selection of modern verse will show how rich English poetry of to-day is in this quality.

I have tried to show the two most striking achievements in contemporary poetry. But its greatest strength lies in its style. It has used the language of everyday speech and still produced undeniable poetry. It has voiced the simplest thoughts, and yet avoided banality. With little of imagery it has attained an imaginative height which other ages can well envy. It is, perhaps, too early to pass any judgment. But I feel sure when the ultimate history of this period will be written the Georgians will compare very favourably with other epochs of English poetry.

LOTIKA BASU

1,1

SOME RECENT ACHIEVEMENTS OF CHEMISTRY

Science does all the drudgery of the world in order to minister to the needs of man but in the seclusion of her Laboratory she is occupied with attempts at unravelling the mysteries of nature depending on the solid ground of observation and experiment. These two sides of Science are roughly spoken of as the Applied or Practical branch and Pure or Theoretical branch respectively. In the present essay an attempt will be made to take a stock of the most important and up-to-date achievements of the Science of Chemistry in both its branches.

It is needless for me to dilate upon the great influence exerted by Science on the arts and industries. The fact was brought to the notice of the Bengalees dramatically, when following upon an experiment performed in a Chemical Laboratory in distant Germany, the thriving indigo industry of Bengal disappeared, as if by magic, during the last decade of the 19th Century. The artificial indigo prepared by the German Chemist Baeyer was cheaper and so it ousted the natural indigo from the world market. Even at the present day we are being painfully made aware of the importance of scientific knowledge. The industries started in this country during the last war, when German goods could not be imported, are languishing due to renewed German competition at the establishment of peace. Not only in India, but in England also we find that a great agitation is set on foot to organise chemical researches bearing on the industries. It is significant that the two latest Presidents of the Chemical Society of London chose as the subject of the annual Presidential address, the importance and need of stimulating chemical knowledge in order to preserve British industries from foreign competition,1 Thus Dr. Wynne, the President of the year 1925 said, "University and Industry—theory and practice—obviously must

¹ Vide Chemical Society's Journal, April 1925, and April 1926,

collaborate if the chemical industry of the country is to make headway in face of present difficulties." Similarly Dr. Crossly, President of the year 1926, impressed upon the minds of his audience the need of the co-operation of science and industry. "Much has been heard recently," said he, "of the necessity of co-operation between the employer and the employed but there is almost as much need for co-operation between business men and teaching institutions regarding educational matters. No one can afford in the interest of our national welfare to say that he has no interest in education, for it is an essential part of the life-work of every one."

Now let us turn to examine critically what solutions have been offered by Chemists to the most important problems of life, like the bread problem. Again and again have we read in the popular magazines that very soon our food will be prepared in the laboratory at a very cheap cost so that starvation will become an unknown thing in the world. But the expert opinion on this point is almost positive that there is no such likelihood in the near future, and for a long time to come, we shall have to depend on the plant for the manufacture of our food materials. The all-important problems of synthesising the fundamental food-staffs, viz., starch, fats and oils and proteins at a cheap cost await solution. The problems have been made more difficult by the recent discovery of the vitamins—subtle chemicals of complex composition which are present in fresh natural food, but absent in artificial food. These vitamins which are absolutely necessary for health have got to be synthesised and mixed with artificial foods before they can take the place of natural food. This is sure to prove a very difficult task for the Chemists of the furure, for even if they succeed in preparing these complex substances, the cost of preparation will probably be prohibitive when compared with the natural varieties. Thus we see there is little prospect of preparing our foods artificially in the near future and the main use of Science for sometime will be in the direction of improving

the methods of agriculture in which great advance has already been made and more is expected in future.

Next in importance to the food question is the question of our available source of energy. It is an interesting fact that all kinds of energy, heat, light, electricity, etc., that exist on earth are traceable ultimately to the sun, the great source of all worldly energy. If the reader traces the brain energy he is spending in reading this essay now to its source, he will find that it has been supplied by the food he has taken, which formed a part of an animal or plant, the animal living on plants in his turn. plants got the energy from sun's rays. Similarly, the coal, which supplies energy to the steam engine and petrol, which supplies energy to the motor cars, are remnants of plants and animals of ancient geological periods, which stored up sun's energy in those days. Coal and mineral oil, fossil fuel as they have been happily named by Arrhenius, have become the most important sources of energy to the modern world. Looking at the reckless manner in which huge quantities of them are being used up now-a-days, thoughtful scientists have become very anxious for the fate of our civilisation when both of them will be exhausted. From calculation made on the basis of the world's stock and expenditure of coal, it has been shown that coal cannot last for more than a few thousands of years at the most. The case of mineral oil is far more serious. Van Hise calculated that with the same increase in the use of oil as that at present going on, the oil-supply of the United States will be used up in 1935. Of course, recently oil springs have been discovered in Persia, Kurdistan, etc. "But even with those supplies," says Arrhenius, "we can only look sorrowfully into a future without mineral oil." At present no good substitute has been found for use in automobile and aeroplane engines. Up till now no other source of energy has been discovered which can take the place of the fossil fuel. The amount of energy derived from the water-falls can never be considerable

on account of the comparatively small number of water-falls found upon the earth. There is little doubt that the main source of energy of the coalless and oilless earth of the future will be the heat directly radiated by the sun. Some practical methods of utilising this immense source is expected in near future. In this connection it may be observed that, as has been pointed out by an Italian chemist, the hot countries will have a decided advantage over the cold countries, as the former receive more of the sun's energy than the latter.

Now-a-days there is a good deal of writing in the magazines regarding the possibilities of utilising atomic energy, i.e., the energy that will be available when atoms can be broken up. Sometimes we find quite sensational announcements in the newspapers with regard to this subject. For example, the other day a Professor declared that he had theoretically discovered the method of liberating the energy of the atom, but he could not perform the actual experiment as the resulting energy will be so great as to blow up the college buildings. Such statements should be accepted for what they are worth. Here I must sound a note of warning to the unscientific readers. Premature announcements of great discoveries are frequently made in the papers and the public will do well to wait for some time till these discoveries are verified by other researchers. As regards this much advertised atomic energy, it has been assured by authorities like Soddy and Aston that there is no certainty of man's ever tapping the energy of the atom.

This being the present position with regard to our sources of energy, we must be very careful in avoiding any waste of the existing sources. We must never forget the following wise words of Arrhenius. "There holds in chemistry a rule which must be applied in all wise housekeeping. It is the 'chemist's Commandment '—' Thou shalt not waste.'"

So long we have been engaged with the practical branch of chemistry. Now let us turn to the theoretical one. Here I have

space sufficient only for briefly dealing with the most important discovery, viz., atomic structure and radio-activity.

We are struck with wonder when we think of the great progress that has been made in our knowledge regarding the constitution of matter during the last century and a half, after man had been satisfied with the so-called five elements of the Hindus (Kshiti, Ap, Tejas, Marut, Byom) and four elements of the Greeks (Earth, Water, Fire and Air) for more than two thousand years. It is only a little over a hundred years when Dalton promulgated his atomic theory of elements, but already the discoveries of radio-active elements have rendered it necessary to introduce modification into that theory. We now know that atoms which were supposed by Dalton to be the smallest possible indivisible particles of matter are in fact compounds of much smaller particles, called electrons, discovered by Sir J. J. Thomson and his pupils. The electrons have been termed atoms of negative electricity and the weight of an electron is probably about '00054 of that of an atom of hydrogen, the lightest known atom. It was observed by Prof. J. A. Cunningham (a pupil of Sir J. J. Thomson) and myself that electrons are liberated during chemical reactions.1 Thus the structure of an atom has been compared to that of our solar system. Just as planets are revolving round the sun following definite orbits, so in the atom the negatively electrified electrons are revolving round the positively electrified nucleus or the core of the atom, following definite orbits of their own. This nucleus is a cluster of hydrogen atoms and electrons. Imagination is staggered to compare the two solar systems of the world—one on a gigantic scale with the sun and the planets and the other on an infinitesimal scale within the atoms.

It has also been found that the atoms of some elements like radium, known as radio-active elements on account of the vast quantities of energy radiated by them, are spontaneously disintegrating. No one understands the cause of this breaking up,

^{1.} Vide Le Radium, Tome IV, No. 10.

neither has any method been discovered up till now to influence the process in any way. In 1903 Ramsay and Soddy found the element helium as one of the products of the disintegration of the element radium. Later researches have supplied many cases of such changes of one radio-active element into another. For example, the element Uranium, the heaviest known element, after some transformations, changes to the element Radium which again changes into elements called Niton. A, Radium B, Radium C, Radium D, Radium E and Polonium and is ultimately converted into lead. Some of these exist for a long time, before they are broken up, whereas others exist for a brief period only. Thus according to Professor Rutherford, the average life of Radium is 2500 years and that of Radium A is only 4 minutes. We find Uranium is the first ancestor and lead the last descendant of Radium. Thus we have genealogical tables of certain families of radio-active elements like Uranium family and Thorium family just as we have genealogical tables of the Stuart family and Bourbon family of Kings. Here I think historians will be glad to find that their subject has supplied some inspiration to Chemistry.

Then, atomic transformations are accompanied by liberation of vast quantities of energy in the shape of peculiar rays, called a rays, β rays and γ rays which are similar to but different from rays of ordinary heat and light.

This energy was stored up in the atoms of the radio-active elements and is called atomic energy. It is present in atoms of all elements but we do not find any disintegration of ordinary elements, so this energy is not liberated as it is in the case of radio-active elements. The extreme rareness of radio-active elements makes their atomic energy of little use, as is proved by the excessive cost of radium, the price of one gram being about £20,000.1

¹ Here it may be observed that Prof. Soddy has said that the high price of Radium is unfortunately hampering research work on radio-activity. The researches of Mme. Curie naturally have cost many thousands of pounds, provided in part by the Austrian Government and the Rothschilds (Interpretation of Radium by Soddy).

At present scientists are anxious to discover some methods by which ordinary elements can be broken up and some arc trying to convert cheap metals into gold, like the alchemists of the middle ages. Of course theoretically there is no impossibility in this so-called transmutation of elements now as there was in the 19th Century, when it was customary to laugh at this wild goose chase of the alchemists. It is true that we have read in the scientific journals that Prof. Miethe of Germany and Prof. Nagaoki of Japan claim to have converted mercury into gold. But we have also read more recently that this sensational announcement still lacks confirmation chemists have shown that the mercury employed in those experiments already contained minute traces of gold from which it is very difficult to free ordinary mercury. Dr. Aston, an authority on the subject of atomic structure, has written in the Annual Report of the Progress of Chemistry, 1925:

"The transmutation (of mercury to gold) requires the addition of an electron to the nucleus of mercury. Nature has provided a mechanism which effectually prevents positively charged nucleus absorbing casual electrons driven in their directions. Otherwise matter could not exist at all. The forces binding together the component parts of nucleus of an atom are gigantic and to be measured in millions of volts. Until the progress of electrical engineering makes such potentials technically available in the Laboratory, it seems unlikely that transmutation of elements on a chemical scale will be possible."

Similar reports of transmutation appear in the papers from time to time. Thus we have read in the Scientific American of Feb. 1926, that two Dutch Chemists, using quartz mercury vapour lamp, claim to have changed lead into mercury and thallum.

The latest announcement in this line is the one made by Prof. Paneth and Peters, that they have succeeded in detect-

ing the presence of helium derived from hydrogen which had been absorbed by finely divided palladium at the ordinary temperature (Nature, Oct. 9, 1926).

I have already said that the public should wait patiently for some time to know whether such announced discoveries have been verified by scientists. In this connection, I am reminded of a sensational incident in the history of the transmutation of elements. Some years ago, we were startled one day to find in the Chemical Society's Journal that Sir William Ramsay had succeeded in changing the element copper into the element lithium. But a few months later we read that Mme. Curie had shown that there had been some error in Ramsay's experiment.

Of course, there had been some well-established cases of transmutation. Prof. Rutherford, by bombarding the element nitrogen with a-particles which are given out by the disintegrating radium atoms, has succeeded in shattering the nucleus of the nitrogen atom and hydrogen atoms have resulted in consequence of this. But Prof. Soddy has criticised this work in the following words, "It must be remembered that in this case transmutation has not been really artificially initiated. What has been done, at the most, is to use a naturally occurring transmutation, that can still be neither initiated artificially nor controlled, to produce a secondary transmutation. The real problem of how artificially to transmute one element into another at will remains still completely unsolved.

There is only another point that I should like to impress on the minds of my young readers. If in future some cheap metal be transmuted into gold, the value of gold, even if it remains what it is at present, will pale into insignificance by the side of the immense source of atomic energy that will be simultaneously made available to man. It is also certain that the value of gold will diminish in direct proportion to the increase of supply of this metal by artificial means. But there is absolutely no doubt regarding the immense value of the

atomic energy. I cannot do better than end this essay by quoting the eloquent words of Prof. Soddy.

"The problem of transmutation and the liberation of atomic energy to carry on the labour of the world is no longer shrouded by mystery. It may be that it will remain for ever unsolved. But we are advancing along the road likely to bring success at a rate which makes it probable that one day will see its achievement. Should that day ever arrive, let no one be blind to the magnitude of the issues at stake, or suppose that such an acquisition to the physical resources of humanity can safely be entrusted to those who in the past have converted the blessings already conferred by Science into a curse." Whether atomic energy will be properly used or grossly abused by man, only futurity can show.

SATISCHANDRA MUKERJEE

UNIVERSITIES AND NATIONAL LIFE¹

MR. CHANCELLOR, LADIES AND GENTLEMEN:

I count myself fortunate in having the opportunity to associate myself with you on this occasion of the first Convocation of the Andhra University. It is a unique honour to participate in the events of this day which will live in the annals of the Andhra country. I thank you most cordially, Mr. Chancellor, for your kindness in inviting me to give the address.

Graduates of the Andhra University, the degrees conferred on you to-day are a recognition of your successful completion of a course of liberal education. You go into the world well equipped for a life of usefulness and service to man. Some of you, I hope, will dedicate your lives to scholarship and search for truth. To all of you falls the responsibility in life due to exceptional opportunity. I congratulate you as you enter on a life which will both test and reward you and bid you bear in mind the great ideals for which the University stands.

As the first alumni of this University, your responsibility is great. The life you lead, the ideals you entertain and the service you render will be cherished by your successors. It must be a matter of peculiar satisfaction to you to be enrolled as the graduates of this University along with such distinguished educationalists as Principal Ramanujacharlu, Sir Venkataratnam Naidu and Brahmasri Venkataraya Sastri. Each in his own line has contributed in no small measure to the intellectual awakening of the Andhras. With these gentlemen at the head of the University roll of graduates, you need not feel that the University is only an infant just a year old and has therefore no traditions about it.

¹ Convocation Address to the Andhra University, delivered on 5th December, 1927, with H. E. Lerd Goschen, the Chancellor, in the Chair.

While the term 'University' is a modern one in India, its meaning has been familiar to us for ages past. If the earliest records of India are to be trusted, we find that students gathered round famous teachers with strange enthusiasm and in surprising numbers. Takshasila, the capital of Gandhara in North West India, the native land of Panini the grammarian, attracted five young men from all quarters of India even as early as the fourth century B.C. The famous seats of learning belonging to Nalanda, Vikramasila, our own Dharanikota, Benares and Navadvipa were cultural centres to which flocked not only crowds of Indians but many eager students from distant parts. of Eastern Asia. The Universitas, the whole body of teachers and pupils had something like a corporate existence. seats of learning were responsible for developing the higher mind of the country, its conscience and its ideals. They helped to produce what we might call a university world, a community of cultural ideas, a profound like-mindedness in basic aims and ideas. In the altered circumstances of to-day, it is the universities that have to assume the leadership in the world of ideas and ideals. India distracted by the deadly feuds of creeds and communities requires more than ever the spread of the university spirit of self-criticism and broadminded reasonableness towards the peoples' beliefs and practices. I am afraid that the Sastries and the Pandits, the Moulvies and the Moulanas, the Missionaries and the Clergymen of the conventional type are not likely to be of much help to us in our present condition. They seem to think that religion has come into the world in order to afford careers for pedants and priests and not that the mass of men may have life and may have it more abundantly. We are all familiar in this part of the country with the type of mind which is concerned with the protection of privilege. It upholds privilege by plausible arguments and employs in its defence the powerful motive of self-interest. deludes itself into the belief that what the critics call privilege is but the law of nature and the barest justice requires the

-satisfaction of its prejudices. In North India, the troubles are due to the opposite type of mind, the type which strives strenuously to obtain universal conformity to its own standards. The mind which works for conformity shrinks at nothing to gain its ends. When inflamed by passion, it resorts to violence and persecution. To cast the whole of a great people in one mould and subdue them into the blind acceptance of a central power or creed is what we are taught to characterise as the Prussian method, though it is not peculiar to Prussia. Conformity has been the dream of despots, political as well as religious. The ideal of the university is the promotion of liberty of mind or freedom of thought. It has little to do with the protection of privilege or a call to conformity. It contests privilege which is something other than that excellence which follows on intellectual eminence or spiritual greatness. It contests conformity, for each individual has the right to develop his own convictions. As a society of thinkers, the university is the home of liberty. The power and presence of the types of mind which deny liberty and uphold privilege or conformity are responsible for communal bigotry and religious fanaticism. It is the task of the university to break down these types of mind and reshape the thought and temper of the age.

The history of humanity is a ceaseless conflict between two fundamental instincts, the instinct of defence, of conservatism which jealously clings to what it holds, turns back into itself and locks itself fast in and that of expansion, the bubbling of life, of the vital urge that ceaselessly strives to break down the barriers. Every age of expansion is succeeded by one of contraction and vice versa. The age of the Vedic seers was a period of vigour and vitality when India gave voice to immortal thoughts. The great epic of the Mahabharata gives us a wonderful picture of seething life, full of the freedom of enquiry and experiment. New and strange tribes poured into the country and the Mahabharata relates how the culture was vigorous enough to vivify the new forces that threatened to stifle it and assimilate to the old

social forms the new that came to expel them. In the age of the Buddha, the country was stirred to its uttermost depths. The freedom of mind which it produced expressed itself in a wealth of creation in all phases of life, overflowing in its richness the continent of Asia. Chandragupta, the great military leader, almost unified a continent. Asoka of immortal fame sent Buddhist missions to Syria and Egypt, Cyrene and Epirus. India soon became the spiritual home of China and Japan, Burma and Ceylon. Under the Guptas and the Vardhanas, we had an immense cultural flowering. Those who carved deep out of the solid rock "cells for themselves and cathedrals for their gods' which are even to-day the admiration of the world must have had sufficient strength of spirit. But soon the spirit of creation died away. The vivid life, the passionate enthusiasm and the strong conviction gave place to teachers less original, to ambitions less exalted and to tame compliance with the old forms. There was a dread of venturing outside the safe limits of guaranteed ideas. The country seemed to suffer from exhaustion. The ebb of the tide has reached its utmost. the present moment, we are in one of those periods when humanity pushed back by the powers of reaction is about to make a great leap into the future. Everywhere the same suffocation is felt, the same vital need to pull down the walls, to breathe freely, to look around on a vaster horizon.

If the Andhra University is to participate in what may fittingly be called the Indian Renaissance, it must pay adequate attention to the study of India's past. This land of ours is no sand bank thrown up by some recent caprice of earth. It is a stately growth with roots striking deep through the centuries. Nations have a history as well as a geography. They live and grow not by the forces of wind and rain, sun and stars but by the passions and ideals which animate them. The University must stimulate an interest in the sources of our civilisation, its art and thought, its language and literature, its philosophy and religion. Any one who has studied and meditated on the ancient

classics of this country will testify to their peculiar greatness, their power to yield new meanings and their inexhaustible value as a criterion of present day modes of life. In these days of startling scientific developments, it may not be useless to point out that reconstructing the mosaic of the long forgotten past is not a less enmobling performance on the part of the human mind than calculating the movements of the stars or making ships fly in the air.

To plead for an awakened interest in Indian culture is not to advocate a return to the conditions of antiquity. The past never returns. In the European Renaissance of the 15th and 16th centuries, there was a renewal of interest in the thought of Greece and Rome and the early Christian church and it marked the beginning of modern European civilisation. So I believe, a study of our past will lead to a quickening of our cultural life and a triumph over scholasticism.

In the handling of the past of one's country, there is one serious danger which we have to guard against. We are tempted to look for great things in the past which is generally regarded as a golden age of peace and plenty, when men lived for centuries, married with angels and entertained gods. The farther we go into the past of a country, the greater is the temptation to the uncontrolled imagination. The danger is a very su btle one to every real interpreter of history. If he is to present his work in an intelligible way, he must note the general principles unifying the multitude of facts with which he deals. It is but a short step from perceiving this unity to imposing the design of one's own making. We must beware that we do not give more than their due weight or value to the facts observed. To pervert the past in order to gain new sanctions for our dreams of the future is to sin against our intellec-If a scientific study of the past of India is tual conscience. possible, it is only in the atmosphere of a university.

A discriminating and critical study of the beliefs and institutions of our country is fitted to be much more than a means

of satisfying an enlightened curiosity and of furnishing materials for the researches of the learned. It is a powerful instrument for progress. History is a mirror in which we may see ourselves, not merely our outer forms as in a common glass but, if only we choose, our inner selves, stripped of trappings and spread out on the table. We can find out our strength as well as our weakness, the germs of life, growth and recovery as well as the maladies which afflict us. We can discover why we the products of a civilisation which has lasted for nearly 40 centuries are only half alive to-day. We live and yet do not. Why is it so? If we are to be restored to health and vigour, we must learn to conquer our national failings. We must find out what those institutions are which have outlived their utility and still survive, thanks to our mental laziness and the extreme unwillingness which men have to overhaul habits and beliefs which have become automatic in their workings. To the conservative mind and the artist soul it may appear a melancholy task to strike at the foundations of beliefs in which as in a strong temple, the hopes and aspirations of a large section of humanity through long ages have sought a refuge from the strain and stress of life. It is difficult to break even a physical habit, it is much more difficult to break long established habits of thought and mind. But I hope that love of ease, regard for antiquity or considerations of safety will not induce us to spare the ancient moulds, however beautiful, when they are outworn. It is not true conservatism, but a false sentimental one which tries to preserve mischievous abuses simply because they are picturesque. Whatever comes of it, wherever it leads us, we must follow truth. It is our only guiding star. To say that the dead forms which have no vital truth to support them are too ancient and venerable to be tampered with, only prolongs the suffering of the patient who is ailing from the poison generated by the putrid waste of the past. We need not shy at change. Our philosophy tells us that permanence belongs to eternity alone and unceasing change is the rule of life.

It is impossible for any nation to stand still and stiff within its closed gates, while humanity is marching on. world is no more a miscellaneous collection of odd and dislocated spots where we could live alone. It has become a small neighbourhood where we would neither live alone nor be let alone. We cannot return to the walled cities of the middle ages. flood of modern ideas is pouring on us from every side and will take no denial. On the question of response to the new forces, there is much confusion of thought. We come across a curious blending of self-assertion and timidity. There is a passionate loyalty to everything Indian haunted by deep but secret mis-The conservatives adopt an attitude of forlorn resistance and cling tenaciously to old ideas. They little realise that the forces will steal unknown, bring down the defences where they are weak and cause inward explosion. The radicals are anxious to forget the past, for to them, it is to be remembered, if at all not with pride but with shame. But they forget that where other cultures may give us the light, our own furnishes the conditions for action. The constructive conservatism of the past is the middle way between the reactionary and the radical extremes. If we study the history of Indian culture from the beginning of its career somewhere in the valley of the Indus four or five millenniums ago down till to-day, the one characteristic that pervades it throughout its long growth is its elasticity and ability to respond to new needs. With a daring catholicity that approaches foolhardiness on occasions, it has recognised elements of truth in other systems of thought and belief. has never been too proud to learn from others and adopt such of their methods as seemed adaptable to its needs. If we retain this spirit, we can face the future with growing confidence and strength.

The recovery of the old knowledge in its depth and fulness, its restatement in new forms adapted to present needs and an original handling of the novel situations which have arisen in the light of the Indian spirit are urgent necessities and if our

universities do not accomplish them, nothing else will. I hope that the Andhra University will give an important place to Indian culture in its school of humanities. It is needless to say that its special task would be to present to the world an authentic account of the history of the Andhras based on literary, artistic and historical records. Sanskrit literature, the Epics and the Puranas will be of considerable value in such an undertaking. I hope the University will make the study of a classical language compulsory for all students at some stage or other of the arts' course.

I am aware that we are anxious to give greater attention to Telugu and make it, if possible, the medium of instruction and examination in the degree courses as well. This very desirable reform has to be worked out with great caution. English is not only the language of international commerce and thought but is also one of the chief factors in the making of the Indian nation. If the course in English is not of a sufficiently high standard, our students are likely to be at a disadvantage in their search for posts, which, after all, is not a minor consideration. India is not the only country in the world where we have to pay regard to the commercial value of a university career.

While we look to the humanities for the development of the inner spirit, which is necessary for any sound national reconstruction, sciences, pure and applied, will help us to build the outer organisation. A passionless and understanding contemplation of objective nature is in itself an intellectual satisfaction of a high order. The scientific temper is characterised by a passion for facts, careful observation and cautious statement of conclusion. It discourages reliance on vague impressions, second-hand evidence and hasty generalisation. It is quite possible in these days of specialisation that our graduates might obtain their degrees without the knowledge of a single objective science. I hope the Academic Council will make such a thing impossible by providing for the compulsory study of an objective science by

the arts' students at the stage of the Matriculation, if not the Intermediate.

We live in an age of intense striving and creative activity. If we are to be credited with intellectual power, we cannot afford to say, 'let others make the experiments, we will benefit by their experience.' The assumption that we are metaphysically minded and are not interested in the pursuit of science is not quite true. In our vigorous days, we developed sciences like architecture, mathematics and medicine, astronomy and chemistry and metallurgy. Latterly, however, there has been a decline in scientific activity owing to the cramping effects of scholasticism. All signs indicate that we are waking up from our scientific slumber. The work done in the Post-graduate schools of the Calcutta University shows that our men are competent to do original work of a high quality, if only they have the opportunity. If we are to swing out again into the main stream of the life of the world, the University must build laboratories and equip them adequately thus offering opportunities for original investigation to the abler students of science.

I hope there are not many who sneer at the conquests of science as materialistic avenues to the betterment of human conditions. A spiritual civilisation is not necessarily one of poverty and disease, man-drawn rickshaw and the hand-cart. It is one thing to say that wisdom is more precious than rubies and the wise man is happy whatever befall him and quite another to hold that poverty and ill-health are necessary for spiritual advance. While poverty is spiritual when it is voluntary, the crass poverty of our people is a sign of sloth and failure. Our philosophy of life recognises the production and increase of wealth among the legitimate aims of human endeavour. Pursuit of wealth does not in itself spell spiritual ruin. It is a means, in itself ethically colourless, neither good nor evil but a necessary means for the attainment of the higher life for the individual and the mass of mankind. What counts is the purpose for which wealth is striven after

and so long as we realise that it is a means to a higher end, we can boldly venture out on the path of the conquest of nature's secrets and their utilisation for man's service. There are so many ills that flesh is heir to which need not be met by fatalism and folded hands. Instead of facing suffering and disease by apologetic justifications of the ways of god to man, a nobler piety demands their reduction and ultimate removal.

Economic crises are slow and undramatic. As we cannot visualise the coarse poverty of the large majority of our people, our emotions react to it rather sluggishly. The average standard of material well-being is exceedingly low; poverty is widespread and is causing immense unhappiness, though it is not for the most part the fault of the poor. The middle class unemployment is growing apace. Industrial and commercial activities to which educated young men of other countries devote themselves hardly exist in India. Young men from five years of age up to twenty are trained in our educational institutions and at the end of all the toil and the cost find themselves faced by blind alley occupations and unemployment, either in or out of law courts. It is a tragic waste of human effort in a country where so much needs to be done. Earth and its resources are bountiful and there are plenty of hands capable of producing wealth and yet they are all lying idle. It is not fair to contend that Indians are unwilling to apply themselves to industrial pursuits as they are more speculative than practical. There does not seem to be anything radically wrong about the Indian mind. Till the industrial revolution, the conditions practically the same in India and in Europe. Our agricultural methods, economic institutions, industrial developments and the relations between the landlords and the tenants were governed on almost the same lines in India as in Europe. Only we happen to remain still in large part in the mediaeval agrarian and pre-industrial stages. It is a matter for deep concern that Great Britain has done little to stimulate us into life and activity in spite of our long and close political and economic association with it. One would expect that this connection with Britain would have given us a start in the race and enabled us to outstrip our competitors in the East. But nothing like it has happened. An educational policy overweighted on the literary side on account of its inexpensive character is largely responsible for the wrong notions of the dignity of certain callings and indifference to others. It is not more dignified to hold a pen and keep accounts than work in a factory or a field, What little there is of industrial development is largely in the hands of British firms who do not seem to realise that they cannot for all time depend on imported skilled labour. It will be to their advantage and to ours as well if they take young Indians in their firms and give them training and facilities. Perhaps, we are not justified in expecting British firms to be so generous as all that. Lieut. Col. Paddon in his report of the work of the Indian Store Department for 1926-27 observes, regarding the work of assisting Indian students to obtain facilities for practical training in various branches of manufacture and industry: "The problem of placing a large number of students each in the line of industry in which he desires training is both complex and difficult, particularly at the present time when trade depression and labour troubles have resulted in decreased production. Factories working half-time or less are not as a rule prepared to afford facilities for training an individual whose experience may later be placed at the disposal of a rival source of supply. In certain trades, the matter is further complicated by the fact that a large proportion of the orders placed by the Department go to the continent; in other lines of manufacture certain processes are jealously guarded as trade secrets." We can easily understand the economics of this attitude though not the ethics of it. Greater efficiency in the cotton industry of India will mean less business for Lancashire. A higher standard of idealism will be necessary if Britain is to encourage and assist the development of trade which may compete with its own. In a spirit of narrow vision

and legalistic quibbling, it is adopting that most perilous of all policies—drift. It is very much to be hoped that the State will give up the narrow view of its functions as a super-policeman maintaining law and order and in a larger spirit foster the industrial growth of the country and help India to find her feet in the world. It is not fair to condemn lack of private initiative and enterprise, for State socialism prevails to a large extent in the country. Industrial development is obviously not the direct concern of the university. Technical education will have to depend on the creation of industries which does not lie in the hands of the university. But with the goodwill and co-operation of the State the University can help the industrial growth of the country by the institution of new technical courses which will have a direct relationship to the Indian industries in general and those of the Andhra area in particular.

A realisation of the defects of the purely affiliating universities led to the constitution of the Andhra University which has for its objective, the establishing of honours and post-graduate schools in arts and science as well as technological institutions. The Madras University, started nearly seventy years ago, has succeeded not only in supplying the State with a body of able and faithful servants but also in producing men of distinction in arts and science. Thanks to it. South India is astir to-day with the promptings of a new life in every sphere. Its unwieldy size and affiliating character, however, hampered its usefulness. Academic opinion, the world over, is against purely examining and affiliating bodies. The main function of a university is not to grant degrees and diplomas but to develop the university spirit and advance learning. The former is impossible without corporate life, the latter without honours and post-graduate schools.

While many students join the university for its utility rather than for its culture, still when once they are in, they should find themselves in a community of workers devoted to the pursuit of knowledge for its own sake. This is the old Indian ideal of gurukulavasa carried out on a larger scale. The university is not so much the official lecture room where the teacher gives a set lesson to his pupils as the atmosphere where the new generation first becomes conscious of itself, where reputations, sometimes lifelong, are made in private discussions in some body's room. Concentration in three centres contemplated by the Act is intended to give our young men the advantages of university life.

Honours and post-graduate schools provide training of the highest kind and offer our students opportunities for self-expression and advancement of knowledge. As divorce between under-graduate and post-graduate work is not desirable, Rajahmundry and Anantapur which have decent under-graduate colleges maintained by Government are selected as centres to be developed eventually into full-blown universities. I have no doubt that the State which has delegated the management of higher education in the Andhra area to the University will transfer the control of these colleges to the University with sufficient safeguards for vested interests.

I am not, however, much in sympathy with the idea of developing the sciences in one centre and the arts in the other. The liberal arts and the pure sciences complete, correct and balance each other. Recent events in England and America have shown the enormous importance of scientific evolution for philosophy and religion. Lord Haldane in his Bristol address on the Civic University observes, "You cannot without danger of partial starvation separate science from literature and philosophy. Each grows best in the presence of the other." Subjects like Experimental Psychology and Anthropology are closely related to both arts and science. Only the other day we requested a distinguished professor of Physics to explain to our philosophy men in Calcutta the principles of Einstein's relativity. The students will be the gainers by living in a university where all subjects are taught, though each may pursue only a few of the

subjects. In these days of specialisation, it is difficult for one to keep oneself up-to-date in any branch of learning without neglecting to a certain extent other branches of learning. University life, where men pursuing learning in different spheres daily meet together in intellectual and social intercourse, is the only safeguard against the dangers of over-specialisation. I am strongly of opinion that both Rajahmundry and Anantapur should have provision for arts and science.

The value of university training consists not so much in the information acquired as in the scientific habits developed. The student should learn to distinguish knowledge from opinion, fact from theory, should be able to weigh evidence, argue closely and state and examine fairly the opponent's point of view. The spirit of research is nothing else than the carrying out of this attitude of free enquiry and rational reflection. Whether a university succeeds in this its chief aim or not depends on its staff of professors. It is the men who fill the chairs that create the atmosphere. We cannot be overcareful in the selection of professors. No other consideration should weigh with us in the appointment of professors than academic achievement and original work, for where there is no zeal for research there is no zest in teaching.

Strong as may appear the assertion, I do not see how I can avoid making it that we Andhras have been deficient in practical sense. We have not shown much constructive enthusiasm or sense of the practicable in our discussions about the University. There is not to be found that real and effective public opinion which no Government or Legislature can despise or disregard when its voice is clearly heard. It is split up into sections and represents very often the views and interests of this class or that clique. We could have raised the Rajahmundry College to the Honours standard, a decade back, with organised action in the Legislative Council and persistent pressure on the Government. We attempted more and achieved less. The selection of a non-centre as the headquarters of

the University is not very creditable to our academic sense. Even after the passing of the University Act, events have taken a sad turn. Each local group is trying to pull its own way and serve its selfish ends and we have reached in this matter a condition of stalemate. While the leaders are wrangling about the claims of localities, young lives are being cheated of their legitimate aspirations.

The University has a right to the devotion of the Andhradesa in a way which no other institution in our area can hope to emulate; and the public which can now through the Legislative Council control educational policy will, I trust, hereafter at least, not tolerate obstruction to educational progress. We are fortunate in having as our first Vice-Chancellor an educationist of knowledge and vision, ability and devotion. burning love for the Andhras and his zeal for their educational advancement will not let him rest satisfied with anything short of the best. An architect who combines imagination with expertness is found with difficulty and when found we should let him build. If we can have two fully equipped and adequately staffed universities at Rajahmundry and Anantapur with technological institutions at Vizagapatam, it will be the ideal thing for the Andhra country. We are told that the resources of the State are not unlimited and they can provide only for the development of one centre. Mr. Chancellor, I ask your indulgence when I venture to express my lack of faith in these pro-The expenditure of the Madras Government fessions of poverty. on universities is inconsiderble when compared with that of The Government of Bengal not only maintains other provinces. a good number of colleges but spends annually over twelve lakhs of rupees on the universities at Calcutta and Dacca. is no use starting a university without providing it with necessary funds. I hope that our Chancellor will not allow His Excellency's Government to treat the Andhra University as a step-child. If we do not wash our hands, we are dirty: if we do, we are wasting water. You cannot stint money and then

complain that the Andhra University is a second-class institution, if not a failure. Our leaders in the Council and the country must press the Government to develop both the centres before the money released by the remission of provincial contributions is utilised for other purposes.

While it is the paramount duty of the State to undertake the higher education of the community, the responsibility of the people cannot be ignored. While we in the Andhra are not so fortunately situated as the people of Bengal or of Bombay in having a large number of rich millionaires, we have a fairly good number of gentlemen not only with the means to assist the University but animated by a desire to do so. That we will not look in vain to private benefactors is evident from the endowments already to the credit of the University. Benefactions in a cause so noble and so urgent as the spread of sound knowledge among all classes of people are entirely in accordance with our traditions. I need not remind you how in the classical times the schools and their teachers depended for their maintenance on the people of the place. A single professorship, a single fellowship, a single scholarship will help to maintain the memory of the donor's name and create the reputations of several others.

In education, as in politics, the best is often the enemy of the good. Now that the Government are prepared to provide funds for the development of one centre, let us start work at once at one centre and keep up the agitation for the development of the other. Where the development first takes place there should be the headquarters.

Graduates of the Andhra University, your University has for its motto a great saying of the Upanishads Tejasvinav adhitam astu. May our study impart that inward light or tejas. May it grant us the power (virya) to stir the soul to effort. If you are truly educated, you will have the light to see the truth and the strength to make it prevail. Young men and women of to-day have a greater opportunity to show their real

worth than at any other time in our recent history. I am sure that each of you is dreaming of the day when India will be selfgoverning but I am not sure that you are aware of the conditions necessary for the realisation of this ideal. Our leaders seem to be of the impression that all will be well if there is a change in the form of government. Some believe that we can coax our rulers to grant us this boon, others who regard themselves as more advanced argue that it can be extorted as a con-But no amount of wizardry can cession to clamour and threats. induce an immediate millennium. We cannot win Swaraj by simply shouting for it. Self-government cannot be talked into existence. No people can keep another in subjection against its will if only its will expresses itself in the achievement of that unity and organisation which will enable us to act as one. Swaraj is not a mere change in the form of government or a transfer of the seat of authority. It is the transformation of the habits of mind of the people. I am afraid that we are paying too much importance to the criticism of the machinery and too little to the moral forces necessary for impoving it. The great light (tejas) which shall also be an actuating power is what we need, the light that tells us in the famous words of Lamartine "No man ever rivetted a chain of slavery round his brother's neck but God silently welded the other end round the neck of the tyrant." Unfortunately, it is the case that the ardent advocates of modernism in public life are at the same time staunch devotees of medievalism in social life and habits. There cannot be substantial political advance of industrial growth unless we develop corporate life and comradeship. No power on earth can stand against the corporate effort of a people to recover its manhood. The difficulties of the enterprise, far from being a reason for giving it up in despair, are to my mind, a reason for accepting it as the challenge of the age. Education and discipline and constant forbearance alone can help us.

We, the Andhras, are fortunately situated in some respects.

I firmly believe that if any part of India is capable of developing an effective sense of unity it is the Andhra. The hold of conservatism is not strong. The generosity of spirit and openness of mind are well-known. Our social instinct and suggestibility are still active. Our moral sense and sympathetic imagination are not much warped by dogma. Our women are relatively more free. Love of the mother tongue binds us all Hindus, Mahomedans and Christians. If the University supplies a constant stream of young men and women imbued with love of truth and service to man, it will help to bring about a renaissance, not an intellectual renaissance only but a moral and spiritual one. May it be your endeavour to realise the poet's dream that in this land all may be in a position to overcome the difficulties of life, to attain an insight into the good, to gain wisdom and find enjoyment anywhere.

"Sarvas taratu durgani, sarvo bhadrani pasyatu, Sarvas tad buddhim apnotu, sarvas sarvatra nandatu."

Friends, we cannot offer to you any glittering prizes of wealth or position or power. You have only difficulties of an unheard of character to face. May God give you the courage and the insight, the self-sacrifice and the devotion which alone can make you worthy to fulfil the task before you. Farewell!

S. RADHARRISHNAN

JOY OF LOVE

T

My mind to me a prison is,
O break it, break it, Love,
Set me free to roam with Thee
Where's no below, above.
Set me free, O, set me free
Lost to be for ever in Thee.

TT

I peep at Thee thro' prison bars,
Mine eyes are lost' midst shining stars—
Men call them sages Thine and saints
To touch their joy in Thee mind faints.
Mind lives again their joy to see—
Their joy is mine; what care for me?

TTT

I not regard the honey of life
But only flies it draws;
I value not the rose of life
But curse the thorn-pain's cause.
O Love, when heart once thirsts for Thee,
Of joy the birth-throes pain, I see.

IV

Take dirty child upon Thy breast
Of all, Thou, Mother divine;
O, wash him clean and give him rest,
Mother of all and so mine!
Forget the hurt he gave Thy love
By hurting children thine,

O soothe the hurt below above
And make the black spot shine!
Give peace to me, though way-ward, wild,
I claim Thy love: I am Thy child!

V

The curfew bell now soon will tell,

The rope is in the puller's hand.

The glass is well-nigh empty be

And grain by grain flies life's grey sand.

The things of world that rapture me

That peal, when heard, will chase away,

Descending darkness kill the sight

That shows myself to me—life's day.

In night of life thou art the light—

The light that soul men call—

The light that lighteth all.

The soul's a maiden coy,

When wed to mind she's joy—

Joy—joy without alloy.

MOHINIMOHAN CHATTERJI

FEAR

It was years ago, most probably rainy season, and the time midnight. I was hurrying through the streets. The loud and rapid steps of my foot-fall disturbed the silence. Almost all doors were shut. Not a soul was stirring. The streets were semi-dark. The lamps were burning dimly. A stray dog passed by me. I looked around but before I could see it, it was gone. My heart beat with loud thumps. I hurried along. The road seemed unending. I took a short route and entered a narrow alley. Before I had proceeded a few steps I saw the indistinct outlines of a human figure standing a few yards off. A street robber waiting there to ambush me; I had no weaponnot even a stick. What resistance could I offer? I had not a single copper pice in my pocket. But would that dissuade him from laying his hands on me? Certainly not-rather that would give him an additional provocation. My blood rushed into my brain. My legs became shaky. I slackened my pace and approached the figure cautiously. I had not the courage to accost him. My throat was dry. My lips were sealed with fear. I could hear my own heart-beats. When I passed him. he did not budge an inch. I thought he would attack me from behind. But I had not the courage to turn my eyes behind. I proceeded a few steps further every moment apprehending a blow. I saw an open door and a dim light burning within. maidservant was cleansing the floor-it was a boarding house. She was picking up the food-crumbs. It struck me that the figure which had frightened me so much might not be a cut-throat. He was probably waiting for her under cover of darkness. Perhaps he was watching her. It may be the man found his room too solitary to remain alone. Perhaps he was jealous of somebody else. The night was dark and cold, the road slushy. Surely some strong impulse held him there. I hesitated in my mind.

Should I go back and enquire who he was? But before I could come to any decision I reached home. Silently I crept into my solitary bed. I was safe in my own room. I muttered a few prayers. I swore I would never return home so late and composed myself to sleep. All night I dreamt of that figure standing in a narrow alley unmindful of time and place.

RASH RANJAN BASU

YESTERDAY

A dewdrop on the cobweb of eternity.

Have you seen it?

It is that moment when my friend and I

Were drawn out of the sweating mists of space

Into the essence of all lovely things.

A dawn-time ..

When a fainting world and all the sobbing agony of man Grew little...vanished...only Love remained.

A dewdrop on the cobweb of eternity.

GWENDOLINE GOODWIN

KANDY

(An Appreciation)

Kandy—Beautiful Kandy! Fairest of all the gems of Ceylon, the Isle of gems and spices, of flowers and beauty!

High up in my aerie-tower in Queen's Hotel, I can look forth from any one of the six wide windows and view wondrous pictures—everchanging, always lovely in sum or rain, with the high lights and deepening shadows, a constant joy to the Soul that renews itself in beauty.

From my high windows I can only see the everlasting hills, the eternal blue of the sky, covered over with drifting clouds of white and grey, of rose and gold. I can only see the tree-tops—such wonderful trees! Such varied tints of greens and browns, with here and there the flame of the tulip-trees, the gold of the acacias, and rose of the mimosas; what a symphony those varied tones would produce were our ears, like Beethoven's inner-ears, only open to hear them!

Here in Kandy from my aerie-tower I look to the east, the south and the west: I see the glory of the sun-rise, and receive the benediction of the sun-set; only heavenly vistas meet my gaze—if I would view the roads or the lake, or watch the passing traffic, I must stand and look forth from the window.

When I chose the tower-room I thought,—here I will be above the noise and discord of the streets; here I can read and think and dream; here I can "loaf and invite my soul," and commune with the Powers-that-be.

Well, we shall see! From afar I can hear the rhythmic beat of tom-toms; and now and again the wind bears to me the sound of a flute—the music is gladsome, the tom-toms are insistent of joy—they excite and charm..."Where? where?" I

rush from window to window. They come nearer, from around the lake, out of the Malwatte Poyagé (garden of flowers), the Buddhist Monastery, where the priests are educated and taught to tread "the Eightfold Path." Nearer and nearer they come and pass on their way to the Daladá Máligáwa (Temple of the Tooth). It is a festival called Pinkama, a gift-bearing feast. The music is followed by many yellow and orange-clad priests, walking sedately beneath their white and yellow umbrellas. Then follows a procession of men and women bearing on their heads great covered pots of food, and many women bearing rolls of newly-dyed yellow cloth for robes of the priests. An immaculate white cloth is held aloft over the gift-bearers as they joyously follow the music, all shouting, "Saddhu!"

The Buddhist priests of Ceylon wear their robes in seven pieces, and, by the way, they must be dyed by the priests in the extract from the wood of the Jack tree, which produces a brilliant yellow and orange dye, and often several shades of yellow are combined in one costume, which is gracefully draped, leaving one arm and shoulder bare. Unfortunately this dye is not permanent, and the cloth must be re-dipped every time it is washed. This has been the custom for many centuries, and the great stone vats in which they dyed the cloth are still to be seen in Anuradhapura. This festival, like all others in Ceylon, is governed by the moon.

At another time from a distance, I hear the wailing of a flute, and the beating of tom-toms—it is indescribably sad—it is like trickling tears; the cry of the pipe is filled with anguish, and yet, there is a note of hope as in Chopin's "Funeral March." They come nearer, the tom-toms express heart-throbs of grief: following the music is a long, slender cart of carved wood, all wreathed with flowers—the coffin is hidden beneath garlands of white flowers. The cart is pushed slowly along by men, and an incense-bearer walks beside it; following are the relatives and friends of the deceased, who is being borne

to the long, long rest. I cross myself and murmur, "Requiescat in pace."

Another picture: the hills and trees are draped in deep shadows, the clouds are black and lowering—a sudden down-pour of rain when, lo, like a curtain the clouds are torn apart, and behold, the Sun comes laughing through the rain, and paints a radiant bow against the eastern sky!

I lean from my window at sun-set and see the reflected gold and pink-glow from the west mirrored in the lake—that mirror of so much loveliness! In the morning it is as a sheet of mother-of-pearl, and the trees along its banks, all refreshed and uplifted by the enfolding Night, seem to lean to look at their reflections in the shining water, and like Narcissus, they doubtless fall in love with their own beauty.

In the mornings many priests pass around the lake from the monastery to the "Temple of the Tooth"—they, too, are mirrored in the water, making beautiful splashes of yellow and brown.

On a moonlighted night the lake is like a great sheet of molten silver, in which the hills and trees are clearly reflected, and the lights around the drive are like long pillars of gold cutting across it; the ripples of the water fanned by the breeze make the reflected lights spread out like waving trees of gold. When we have a night of stars the constellations shine in the water as they arise, and thousands of fire-flies hold carnival over the lake; the trees are filled with them at times, as though celebrating a fairy Perahera, and cicadas beat their little tomtoms all through the night—the trees lean and listen, the water ripples and flows, and it seems that a bridge of white-mist is thrown across to the little Island, that gems the middle of the lake, and pale ghosts of other days walk back and forth. Ah, there is witchery in the nights at Kandy!

Then comes the "Salutation of the Dawn"! I lean from my eastern window to salute and bless it. The lake glows and blushes like a bride newly awake! The dew-washed trees rejoice, and shake their branches to awaken the birds; they preen their wings and burst into song; the crows add their raucous bass notes trying their best to make melody, and the great chorus of the Dawn bursts forth! The tom-toms begin to sound from the Vihara, little bells chime from the Hindoo temple anear, and from the mosque comes the call to prayer:—"La Allah illa Allah—Come to prayer; prayer is better than sleep!" All praying to That One—That One who is the Origin and primal Cause of all life.

"Whether Jove, Isvara or Allah,
Or Pagan, Gentile or Jew,
In all beliefs is the thread of gold
That Truth's shuttle has run through."

Later I watch men and women with little children passing—many with flowing hair fresh from the morning bath. They are dressed in gay saris and serongs, with the quaint jackets worn by the Sinhalese; many wear spotless white, others bright garments and head-dresses of many varieties; they all bear gifts of fruits or flowers to the Temple; brass trays of white star-jasmine, or the fragrant, waxen 'temple flower,' with their hearts of gold;—to be offered to the great gilt image of the Buddha, the "ever-compassionate one."

The Tamil women are sweeping the streets—free-stepping, graceful creatures, in glowing red, yellow and purple saris carelessly draped over bare shoulders and arms—they wear many ear-rings and silver bangles and are the high notes of colour in the picture.

An artist could select a hundred types from the passing, morning throng; each one, beggar or gift-bearer alike, picturesque.

Even the bullock-carts, with their neatly woven cocoanutleaf tops, with the fringes and tassels hanging across the front to shield the drivers' eyes, the jingling bells on the necks of the sleek animals; the black and brown men, with strong, sinuous bodies, carrying bamboo pingos across their shoulders from which depend huge bunches of bananas, or carrying on their heads baskets and trays of fruits and vegetables—all fit into the picture of morning in Kandy, beautiful city of the hills!

Many ask, why is the place called Kandy? What does it signify? Kandy is not the real name at all, but a sort of "nick-name"; its proper name is much more dignified—"Senkadagala Nuvara." The city, "Senkadagala" became a royal residence and the capital of the hill-country towards the end of the fourteenth century, long after the beautiful cities of Anuradhapura and Polonnaruwa had been laid waste by invading vandals, and deserted, and left to the bats, jackals and wild-beasts of the jungles.

The king of "Senkadagala Nuvara" became king of all Ceylon two centuries later, and the name was then changed to "Maha Nuwara," the chief city.

In speech and writing the king was known as the "King of the Hill-country"—"Kande-uda-rata-raja." The Portuguese occupying the maritime districts from the sixteenth century, corrupted the designation into "King of Kandy." The Dutch continued the name of Kandy, and the British did likewise, hence Kandy it remains. The Kandyans, who are the Sinhalese of the Hill-country, remained independent until 1815 A.D., when England gained full possession of the Island.

The last Kandyan King, Sri Vikrama Rajah Sinha, was a Tamil, and he was an unspeakable brute and tyrant, he committed many atrocities upon his people, and inflicted much grief and suffering. The only commendable thing left to perpetuate his name was the turning a paddy-field into a lovely lake, which with the bund and strong wall around the lake, is the chief adornment of Kandy. He also caused to be built the Octagonal tower into the Daladá Máligáwa, which is the most artistic part of the temple. It is true that they were built by forced labour, for which the distressed workmen received no pay beyond a pittance

of food; but if their spirits exist and can see the delight their work has afforded and will continue to afford to many thousand souls, they will feel amply repaid for all the hardships they endured. The Octagonal tower of the temple contains the Oriental library, which is rich in its collection of rare books and Pali and Sanskrit manuscripts. The books are all beautifully bound, many are written on "olas" with a stylus, and contain the wisdom and teachings of the great Teacher, Gautama The "olas" are carefully prepared strips from the talipot palm, and last for centuries. These strips are made into books, and are bound in covers of the same size, made of carved wood, or with jewelled-set silver and gold or ivory backs, which are beautiful to inspect closely. The present custodian of the library is a learned monk who is now writing a book on thin sheets of silver, and using a stylus as in days of old; the work is exquisite. There are many portraits hanging above the low book-cases around the library, one life-sized picture is of King Vikrama, whose character is clearly imprinted on his face for all to see.

There are two immense gilded statues of Buddha in the temple, before which many rich gifts and daily offerings of flowers are placed. These images are very different to the gross monstrosities one sees in China and Tibet, as they are carved or moulded by strict directions, and exact measurements which the artificers reverently carry out. This is the direction for the standing Buddha, the Law-giver:—"Hail to Omniscient! Let this Lord Buddha, having cheeks of a golden hue, lips of light red, captivating eyes, brows that are lovely as a bow, shining like the moon who eclipses the lotus, is beauteous as the faces of the daughters of Mara, guard thee."

The seated Buddha, or the Yogāsana, "must be carved so that the tip of the nose, the right thumb, and heel of the right foot will be visible to the eye of the image, which must express unfettered quiescence, and absolute pure-mindedness from head to feet."

The recumbent Buddha "must express complete rest, bliss, Nirvana. The Image if perfect will bring a blessing to the house and increased riches; if otherwise it leads to destruction of health, and length of days."

There is also in the temple a beautiful image of the Yogā-sana carved out of pure crystal and illuminated by an electric bulb, back of it making it as radiant as a diamond. In the "holy of holies," where the "Sacred Tooth" is enshrined is an exquisite Buddha carved out of an immense emerald, it is kept with other rich gifts and jewels in the silver dagoba. There are gold service plates set with large sapphires, gold bowls, and other rich temple receptacles of great value that rest on a solid silver table before the shrine.

Across the road from the Daladá Máligáwa is the Nata Dewale wherein are three dagobas, one containing a large figure of the reclining Buddha to whose shrine many people bear their offerings and kneel to pray. There is a very large, beautiful Bo-tree also in the compound under which is an image of the seated Buddha.

The town of Kandy and the lake are in the bottom of a bowl, as it were, completely surrounded by hills, and that "inverted bowl we call the sky" is a fitting cover for it. There are two broad drives around the lake, one just beside it beneath the wide-spreading trees, the other high up on the hill-side.

There are miles of dri ves and walks, and lovely bungalows all through the Kandyan hills, from which wonderful views can be had of out-lying mountains, tea-gardens, and valleys. The richly tinted foliage is like rare tapestries woven in the looms of God. The entire Kandyan district is unsurpassed in natural beauty, with its streams and water-falls, its hills and vales, with here and there a white bell-shaped dagoba marking the site of a little village hidden amid the greenery.

There are eight thousand acres of tea under cultivation in the Kandyan hills interspersed with cardamom, cinchona, nutmeg, with groves of cocoa-trees, plantations of rubber, the ever-useful cocoanut groves, and the broad-leaved plantains such a blessing to the natives. The Vanilla vines festoon the forests, perfuming the air, and the valuable beans are sold or the streets at a low price.

Kandy is also a haven for the naturalist, botanist, and entomologist: there are myriad brilliant-hued butterflies, like living flowers; scarlet dragon-flies of immense size, gay-plumaged birds, numerous queer bugs, some exactly like the green and yellow leaves of the trees they inhabit. There are scorpions and lizards of unbelievable length, that are bright blue in colour, but if annoyed they turn yellow while their heads grow red. There are many varieties of chameleons, and many deadly serpents beside the highly venerated cobra.

There is a legend that while Buddha meditated beneath the Bo-tree, whenever it stormed an immense cobra extended its hood to protect the "Holy One" from the rain. Hence, you will find the cobra painted and sculptured in many temples, and is sacred to the Buddhists and Hindoos alike.

There are many beautiful roads around Kandy, one of the most picturesque is known as "Lady Horton's Drive"; it curls around the templed hills going ever higher and higher, until the top is reached from whence the extended views on every side are sublime.

Another fascinating road is "Lady Blake's Drive"; it winds downward, and beside the dashing, foaming Mahawile-ganga river, as it leaps over rocks and great boulders as though rejoicing in its freedom and strength, and twines around its thousand little islands, while across the river the thickly wooded hills arise in majesty and loveliness. We also pass beside the bathing ground of the splendid temple elephants, who disport themselves in the river daily, for about two hours, while their keepers diligently scrub them down with heavy brushes, and passers-by stop to admire their antics, and feed them on their much-loved sugar-cane.

We may return by the famous "Royal Botanic Garden,"



and drive through its exquisite palm-bordered avenues, and revel in perfume and beauty on every side. The Perideniya Garden lies in the arms of the Mahawileganga river, forming a little peninsula over a mile in extent; it contains one hundred and fifty acres filled with rare trees, vines, plants, flowers, ferns and orchids; such a collection as is nowhere else in the world found all together. There are broad avenues of Palmyra-palms, Royal-palms, Talipot-palms, cocoanut-palms and others.

There are wonderful vistas to be seen through over-arching Malacca, and other gigantic bamboos, and there are festoons of flowering vines to charm the eyes of the beholder. One vine I must speak of: it is commonly called the "cannon-ball vine," (Couropita Guianensis Myrtaced). Its large blossoms are blended tints of rose, lilac and pale-yellow, and they exhale a delightful, spicy perfume. The strangeness of the flower is that it represents the "Naga Rajah," or king cobra, with extended hood overshadowing Buddha. The fruit of this remarkable vine is like a large, dark cannon-ball, and it is the repository of the seeds. One tall tree in the garden is filled with a weird sort of fruit that hangs by the thousands, like bunches of grapes. from the branches; there are flying foxes, taking their repose during the day, to set forth at twilight in search of the fruits upon which they subsist, and to live their little lives and loves beneath the stars. It is well-worth a trip to Kandy just to go through Perideniya Garden and to study the rare trees, plant-life and flowers.

In the town of Kandy there are many interesting old buildings; on the bank of the lake is the library, the lower story of which was erected by the last king as a bathing house for the queens and ladies of the harem; it is just across from the "Temple of the tooth." Just back of the Temple is the present Museum, which was once the old palace of the Kandyan queens. It is now filled with interesting relics of the past, and on the pavement at the entrance is a very pleasing example of moonstone carving; there are also several such stones within the

enclosure of the Daladá Máligáwa. They are usually most beautifully carved in semi-circles, with the sacred hamsas, (wild geese), the simha, (lion), the mythical ancestor and totem animal of the Sinhalese, the ubiquitous elephant, and there is always a full-moon with a face or the have (hare), thereon.

There is a pretty story in Ceylon of one of the pre-human incarnations of the Bodhisatva: -- once he came to earth as a hare and the god, Sakra, (Indra), seeking to test his fidelity and goodness descended to the forest in the form of a Brahmin, appearing before the hare weak and exhausted as though from long fasting. He besought the hare for food, and the poor animal thought, "What can I get for this holy-man? I, who live upon grass and leaves alone? A hungry man needs meat." So telling the Brahmin to kindle a fire and he would provide food, he hurried off. When the fire was lighted, the hare returned and hurled himself into the flames, eager to immolate himself for the sustenance of the holy Brahmin. However, the fire was only an appearance, in reality it was a bed of fragrant flowers into which the hare jumped. The Brahmin turned back into a god, and that all might remember the sacrifice of the hare he painted its picture against the moon! You will find it so painted on the walls of many Viharas.

The Audience Hall, still in use, adjoins the Temple and was also built by King Vikrama, and was in his day the stage for many fearful and heart-rending scenes. It looks very peaceful and inviting now, with its many beautifully carved iron-wood pillars. The so-called new palace of the queens, is now the domicile of the Government Agent. The king's palace was destroyed during warfare, and the Kachcheri, a building of offices for government employees, now occupies the ground.

While driving about Kandy one can but admire the well-planned and terraced paddy-fields; but little do we realize the important ceremonies that attend the sowing, growing and garnering of this all-important grain. Astrologers must be consulted as to when to sow the seeds; incantations and charms

must be offered to the gods of the harvest; good elementals must be invoked to keep away destroying insects, thuswise: "By the power of the Lord Buddha,—this very day all ye flower-flies, black-flies, proboscis-armed-flies, and earth grubs of this field, away, away; stay not." Great ceremonies are observed at the reaping of the grain, attended by priests, doctors, astrologers, and devil-dancers; there are also many tom-tom beaters, to accompany the ceremonial dancing, and joy rules the day; for without the precious, life giving rice, the poorer classes could hardly exist.

During the wonderful Esala Perahera I was honoured by being invited, with a small party, to witness the robing of the Temple elephant for his part in the last night of the great procession. It was the night of the Esala full-moon, and the great silver-gilt dagoba that usually contained the six other gold and bejewelled receptacles of the Sacred Tooth, was to be borne forth for all to behold—the Tooth is never taken from the Temple.

The Dévá Nilamé (Headman of the Temple and of all its affairs), was gorgeously apparelled as in days of old, and was most imposing to behold. He wore the traditional eightpointed coronet set with rich jewels, and the gold band across his brow which betokened his high estate. A splendid largelinked chain of gold, from which a jewelled pendant hung reached to his waist, where the ivory and gold handles of his daggers could be seen, thrust through the broad velvet, goldembroidered girdle. His jacket was of heavy cloth-of-gold, with buttons of rubies, and the full sleeves reached only to the elbows. On his left middle finger he wore an immense jewelled ring of office. Wound around his body in folds that came down to his slippered feet was about fifty yards of gold embroidered silk-tissue of finest quality, ending in little frills around his ankles. The tom-tom beaters and pipers, and the Temple dancers, in a sort of harness made of many-coloured beads and tinsel, followed by incense and flower bearers all

danced before the Dévá Nilamé, as we went forth upon the Temple-porch to witness the robing of the sacred elephantwho by the way, is not a native of Ceylon, as the breed here do not wear such tusks as does his majesty, who is of Indian origin. He was brought into the main entrance of the Temple and his gorgeous trappings were ready for his adornment: the crimson velvet head-covering was richly embroidered in gold and silver and jewels, surmounted with an image of the seated Buddha. Then his entire body was draped in velvet, with rich fringes, and his tusks were sheathed in gold; throughout the entire process his majesty stood patiently and seemed to realize the important part he was to play in the procession. A splendid howdah was then put upon his back, and on a great silver tray of jasmine, and the lovely plumier flowers, the sacred dagoba was placed, and over all was lifted a silken canopy supported on either side by rods of iron, which were upheld by uniformed Several head-men, bearing baskets of flowers, mounted the elephant, their attendants sitting back of them holding aloft their gold and silver umbrellas; then two other richly caparisoned elephants were brought to escort the bearer of the Shrine.

Each division of the Perahera procession is led by a chieftain similarly dressed as the Déva Nilamé, save that their hats are four-cornered, richly gold-embroidered and surmounted by a lovely ornament called a Malgaha (Tree of Life), which is a little tree made of gold with leaves and flowers of jewels. Each chief has his own temple tom-tom beaters, flageolet-players, and dancers, who never turn their backs on their chieftains. This imposing procession is preceded by whip-wielders to open the way through the dense crowd, and they have certainly perfected themselves in their art, as the long lashes snapped like pistol-shots behind the fleeing, laughing throng.

When the new Esala moon ushered in this pre-historic celebration, the High-Priest of the Malwatte Monastery, who had been ill for some time, passed out, which of course delayed

the Perahera festival, while his body lay in state in the Pansala for the multitude to view.

The funeral obsequies were of great interest to me, and rivalled in splendour the Perahera. Led by a brass-band playing a mournful dirge, came from temple and monastery a long procession of yellow-clad monks, under white umbrellas. Following were the head-men and chiefs, flag-bearers, incensebearers, and on an immense banner was painted a life-sized portrait of the Holy-man, seated in a throne-like chair, and holding a palm-leaf fan in his hand-altogether a noble-appearing figure; this was borne aloft by four men. Following were some fifteen flower-twined bullock-carts, or sorts of floats, filled with great piles of puffed-rice, through which were mixed small coins, this was generously thrown broad-cast among the thousands who thronged the road-way, and was to represent the casting aside of all earth's cares, and as a blessing and farewell to his people. The carts also carried large, brass urns filled with perfume which was continually sprayed upon the air. Following were the Temple tom-tom beaters and pipers, making weird and mournful music which was thrilling to the senses. Just behind them came a most imposing catafalgue upborn on the shoulders of many men; it was wreathed with garlands of white flowers, and on it rested the flower-hidden coffin of the belovéd High-Priest; as they passed through the vast multitude, they all cried out a blessing and farewell, shouting, "Saddhu! Saddhu!!"

He was borne several miles out to the cremation grounds, where, I was told, the catafalque was placed in a beautiful temple-like structure, and all was burned together. May he find his desired Nirvana!

In contrast I attended a few weeks later a high-caste Sinhalese wedding, and was charmed with the quaint and interesting ceremonies, the elaborate decorations of white lotus-flowers, the picturesque costumes, and rich gifts to the bride and groom. So it seems that life is made up of contrasts,—of lights and shadows.

The Sinhalese are most proficient in their original mode of decorating the roads when any important function takes place, or when a distinguished guest arrives, as when the new Governor of the Island visited Kandy the highways leading from the depot to the "Temple of the Tooth," and on to Government House were most wonderfully decorated. From posts of areca-palms arose arches of golden bamboo, fringed with the tender young leaves of the cocoanut; and there were four splendid Pandals, like unto the "Arc de Triomphe." One was erected by the Sinhalese, one by the Hindoos, one by the Mahomedans, and one by the Afghans now residing in Kandy, and it seemed that each tried to surpass the others in the elegance of the Pandals. The frame-work of these structures are of bamboo lightly built on lovely columns of the areca-palms, elaborately fringed with split cocoanut leaves, hung with every sort of tropical fruits and flowers and vines, palmyra-nuts, kitulberries, and cocoanuts, which are supposed to bring good-luck, and they also sported many coloured lights and flags.

Pandals are really very beautiful constructions, the building of which was handed down from the lost days when the kings held sway in the splendid cities that are now only dignified and pathetic ruins.

Kandy—beautiful, peaceful Kandy! Never shall I forget the halcyon days spent amid your verdant hills, that have indeed been blessed by the Creator, and are watched over by the gods.

TERESA STRICKLAND

THE NEW ECONOMICS OF LAND

Dr. Michael Hainisch, the first President of the Austrian Republic has produced a monograph which should prove to be of immense theoretical interest to the advanced students of land-economics in Europe. It is well calculated to furnish the Indian statesmen and economists also with practical suggestions in regard to the problem of land-reconstruction. The volume is entitled *Die Landflucht*.¹

From the title alone the reader will believe that the author discusses perhaps the too common subject of exodus from the country or mofussil into the cities. This conventional topic of village vs. town economy is certainly one of the main themes. But another and perhaps more important subject is the exodus from agriculture into non-agricultural occupations. It need be observed at the outset that to take to non-agricultural occupations is not necessarily tantamount to an exodus from the village into the metropolis. For, a great part of the big industries of the modern world is to be found in the mofussil.

The fundamental problem with which Hainisch deals is the unpopularity of agriculture as a profession. And the economics of the unpopularity is exhibited in a statistical and historical manner. The treatment is comparative and although intended to be a suggestive study on the situation in Austria may well be taken to be a contribution to the science of land reform in Europe. Those of us in India who are familiar with the theories of Sering's Innere Kolonisation (1893) and their repercussion on the economic legislation of Germany, Denmark, Great Britain and other countries will not fail to notice the advances that Hainisch's treatment of land questions with special reference to their attempted solution have scored upon

Fischer Co., Jens, 1924, pp. 871-10.

those of the former. Economic theory like economic development has been going ahead in the Western world.

The modern world is essentially a capitalistic one. Mass production, large-scale business organization, capital," international competition and world-finance are some of the features of this economy. Whatever be the occupational activity or profession it will have to submit to the requirements of this world-order. The choice of a career or occupation, whether from the standpoint of the capitalist or from that of the labourer, will naturally and normally be directed just to those branches of economic enterprise which are likely to possess the possibilities of success by this test. So far as industry is concerned, there is not much room for scepticism. For, the requirements of capitalistic business-economy are well met by manufacturing organizations. Indeed, it is in the industrial fields that the capitalistic system is what it is. neither psychologically nor technically is agriculture as yet well suited to capitalism. In the struggle for existence and self-assertion between agriculture and manufacture, therefore, the former has every chance of being weeded out. The exodus from "land" is thus an inevitable necessity of modern economy.

Mobilization of labour is almost as easy to-day on account of the facilities of transportation as mobilization of capital. Labour seeks the highest rates of remuneration as capital the highest rates of profit. There cannot be two rates of earnings for the same class of services in one and the same market. Agricultural labourers therefore want to be paid at the same rates as the labourers in the industrial factories. But the farmers are not in a financially prosperous enough position to employ labour on such favourable terms. The landless agricultural labourers must therefore seek position as hands in non-agricultural concerns, no matter whether in metropolis or mofussil. What now about the capitalists? Would they care to invest their money in farming when they know that they can-

not make it paying or at any rate paying to the same extent as some of the rival occupations? Certainly not. They run away from agriculture exactly as the labourers do.

The question of the unprofitableness of agriculture has been challenging for about two generations the agricultural faddist, land-hobbyist, "ruralist" as well as the patriot, social reformer and other denominations of applied economist. Each one has been attempting to make the impossible possible, i.e., render agriculture, unpopular as it has grown to be by sheer force of world development, popular both among peasants and princes. One universal panacea is well known. It is "cooperation "discovered in the middle of the 19th century. Another discovery of the last two decades of the same century is the colonization of the lands of the country achieved through the redistribution of population within its boundaries. The "small holdings" movement belongs to the same genus of land-doctoring. The first is to-day universal enough to be an almost inevitable item in schemes of economic development for Young India. The second measure, "internal colonizing," has perhaps been demanding the attention of a few high-brows in recent years. There are chances of its being no less popular in Indian economy than the co-operative movement in the near future.

Now comes the third great discovery, as presented in Hainisch's analysis. He has tried to beard the lion in his own den. The chief problem, as he envisages it, consists in making agriculture an economically worthwhile proposition. The importance of having a large number of people employed in farming belongs, in Hainisch's economic system as in that of many other theorists, Continental and British, to the minimum of sociological postulates. But the labourers will stick to their lands only so long as they are liberally remunerated. Now, higher wages for agricultural labour can become normal phenomena only under conditions of high incomes for farmers. The question of higher prices for agricultural produce becomes automatically a part of this economic ideology. Nor is this all.

Logic compels us to bring in the problem of land-values in this theoretical complex. It is a precondition for this system that the land-value should not rise. We are therefore counselled to a comprehensive scheme of agrarian reform which through legislation would dictate "fair" remuneration in regard to land, wages and prices.

The desired and desirable relations between land-value, wages and prices cannot come through "natural" laws. Hainisch makes good use of British protectionist theory and practice in regard to agriculture during and since the war. State intervention is postulated to be an indispensable method in agrarian reform. On the question of minimum wages and minimum prices, likewise, the author has drawn considerably on the war-time and post-war experience of Great Britain. He is especially in favour of an agricultural monopoly to be exercised by the state. And this he considers to be much more worth while, socially speaking, than protection. As soon as a state monopoly is introduced in regard to the goods to be imported, the way is laid open to the fixing not only of prices and wages in connection with the land to be cultivated within the country but the fixing of the land-values as well. The state thus comes to the rescue of agriculture in a national economy by rendering it worth while to all the parties concerned.

BENOY KUMAR SARKAR

CONSOLIDATION OF AGRICULTURAL LANDS IN BENGAL

Every one acquainted with the topography of the villages in Bengal knows that the plots appertaining to Consolidation defined. a particular holding covered by one tenancy held by one or more co-sharers lie scattered about in the village. The "plot" is not necessarily a piece of land within only one set of boundaries without any dividing "ail" between, but is a piece of land of the same class belonging to one tenant or set of tenants held under the same tenancy-conditions which may include more than one geographical plots or smaller parcels with distinct dividing boundaries of their own. It is important to remember this distinction between the Settlement-recognised plot and a geographical plot for a correct view of the obstacles to the use of mechanical processes, which among others is one of the main objectives of consolidation. Even when held by the same person in one block, plots are divided for the purposes of irrigation, etc.

Now the consolidation of agricultural lands may mean (a) grouping together of all tenancies held by the same person or the same set of persons, or (b) grouping together of all the different plots of land held by the same tenant, or (c) aggregation of lands to form larger units to be owned by the same individual or set of individuals within, as far as possible, one set of boundaries.

To effect the first is an easy process. There is bowever no legal enactment to force it when either the landlord or the tenant objects to its application; but in Khasmahals and in estates of enlightened landlords such consolidation is frequently effected. Its effect on the efficient use of the land, however, is nil. It simply reduces clerical work in accounts. The third one is really a development of the second and it is this latter which needs to be examined first. It is proposed, therefore, to examine how far it is desirable to arrange for a geographical juxtaposition of

plots held by the same individual or set of individuals working jointly to create consolidated units or blocks within one set of boundaries, and if economically desirable how to bring about such a juxtaposition. Next it will be seen if the third process raises any complications.

The chief causes which lead to disintegration are two:

Causes of disintegrain the laws of inheritance, (b) inequalities
in the advantages of the different blocks of
land to the cultivators. The former constitute the permanent
and the latter the non-permanent causes of disintegration.

Some detailed consideration is necessary to appreciate the
difficulties in the way of practically dealing with the problem.

(A) The two main religious groups interested in the land are the Hindus and the Mahomedans.

For the Hindus there are two schools determining the course of inheritance: the Mitakshara and the Dayabhag. In Bengal the number of families governed by the Mitakshara system is very limited. The major portion is governed by the Dayabhag system. In both, however, inheritance is determined by the question of the right of offering pindas to the dead. Some difference of opinion exists as to whether the offering of pindas and inheritance are inseparably connected. But the passage of Manu " pindam dadyat haret dhanam (पिण्डं द्यात इरेंद्र धनम्) has been generally accepted as the authority for the proposition that the right of inheritance is founded on the benefit conferred by the offering of pinda. It is not necessary to discuss the principles underlying this conception. It is sufficient to note that it seems to be a very ancient conception, traces of which can be found even among the Greeks and the Romans (see Smith's Greek and Roman antiquities). This conception among the Aryan settlers of India developed into a religion and now forms part of the principles on which the ritualistic Hindu bases his socio-religious practices. It will thus appear that the principles of inheritance are bound up with the religion of the Hindus.

For the Mahomedans the rules of inheritance are more definite. Detailed rules—the limits and the quotas—are given in the Quoran. They are based on the following clearest injunctions:—

(a) "Telka hududulla wa main you ti illaho wa rasu lahu youd khelho jannatin tajri mun tahtihal anharo khalidina fiha wa zalikel fawzul Azim"

which translated means:-

- "These are Allah's limits and whoever obeys Allah and His Apostle He will cause him to enter gardens beneath, etc." (Chap. IV, verse 13.)
- (b) Wa main yasillaha wa rasulahu yata adda hududahu youd khelho naran khalidan feeha wa lahu azabum muhum

which means:-

"Whosoever disobeys Allah and His Apostle and goes beyond His limits He will cause him to enter fire to abide in it and he shall have an abasing chastisement" (Chapter IV, verse 14.)

It is clear, therefore, that the disposition of property for the followers of Islam is regulated by the clearest injunctions in the Quoran; and deviation therefrom is held as a sin.

Thus both to the Hindus and the Mahomedans the rules of inheritance are a part of their respective religious code; and one may say that the ideas of entail or primogeniture or the like, are against their communal prejudice. We have to reckon with the fact therefore that the rules of inheritance will be more or less permanent factors continually at work to disintegrate property at each succession and break it up into smaller and smaller parcels, and any legislation to alter the rules of inheritance will be interpreted as interference with the religions of the people. Consolidation, consequently, once made will be immediately unmade and a solution under existing conditions will only be temporary in effect.

The other cause which tends to split up lands into small fragments is the inequality in the advantages and the class of the land. Suppose an individual dies leaving his homestead and

other lands in different fields. The homestead portion with temples and tanks for use is coveted by all for facilities of performing religious rites and of meeting domestic needs. Similarly, each of the heirs and successors may demand a particular field with facilities for irrigation to be split up into parts for equality of advantage. An Aman land has got to be split up so that each may have his share of Aman as well as of Aus or Rabi. Over and above these each field has got to be "ailed" up to hold either rain water or water from irrigation channels. Leaving out the question of homestead lands for the present the inequality is mainly, though not exclusively, of advantages in irrigation and the quality and nature of yield. All these are removable. Science may remove the inequalities. But till it does, the tendency will be to disintegrate.

Fragmentation: advantages : but these are entirely due to the present conditions.

The cultivator (a) gets a part of land of each class; he shares in the advantages and disadvantages with his co-sharers, (b) can "ail" up his land and thus retain his share of water, and (c) has narrow demarcating strips which leave portions for grazing cattle.

The disadvantages are obvious and are mainly these :-

- (a) Waste of time and labour in shifting his cattle and implements from place to place.
- (b) Being scattered, improvements in the shape of devising means of irrigation by sinking wells or excavating tanks are almost impossible to effect.
- (c) Improved appliances which require large blocks to be worked cannot be introduced.
 - (d) Effective personal supervision is difficult.
- (e) Small scattered blocks lead to wastage in seeds, manure and labour.
- (f) The demarcating strips have to be left out of cultivation.

The idea of grouping parcels into one block is not foreign to the cultivators of Bengal. Any record of rights will show that there are cases of "Badlayen" or "Ewaj dakhal" which means that the cultivators have exchanged lands on the ground of contiguity. By mutual arrangement they are known occasionally to have permanently exchanged plots on the same ground.

So far as the law is concerned the Partition Act (Act V of 1893) permits a court at the instance of a party applying for partition of joint property under certain conditions to have it sold up and bought by one. Individual co-sharers in agricultural holdings with separate possession can, if they desire, and under the conditions laid down in the law, get the holdings thus sold up and bought. The number of separate holders of a joint-holding can thus be eliminated.

Similarly the Mahomedan law recognizes a right of preemption in sale by holders of contiguous lands.

It appears therefore, that the idea of voluntary exchange exists and that through the Partition Act and the right of preemption for Mahomedans consolidation of holdings to a certain extent is possible. The practical effect of these aids however is not very great. Exchange on voluntary agreement can only be effected by mutually interested persons owning neighbouring lands in different blocks; it not infrequently depends upon the good-will of the landlords too or their agents. Such instances, however, are rare.

The Partition Act procedure involves the institution of a civil suit; and as it depends on the option of the court, the result is uncertain. The purchaser needs ready money and as he cannot always command this he is often prevented from resorting to it. The procedure thus is resorted to only in very rare cases.

The exercise of the right of pre-emption is dependant on certain conditions laid down in the Mahomedan Law. The offer

to exercise the right must be made immediately (talab-i monasi-bat) and it must be made specifically with certain gesture laid down in the law before witnesses (talab-i-isthad).

The right is liable to be lost by acquiescence while the vendor can defeat it by leaving out a small strip of land immediately adjoining those of his neighbours. All these make the procedure somewhat complicated, and in more cases than not the claim is frustrated.

If consolidation has to be better and more exclusively organised more effective methods are necessary.

Legal position.—It should be recognised that consolidation if it is to be an effective means for im-Possible methods of proved and intensive agricultural operation consolidation. must be made by methods which can be adopted by those actually engaged in cultivation. The large maiority in Bengal so engaged belong to the class of raiyats, most of whom again have a right of occupancy under the Bengal Tenancy The law about the transferability of this right is now in a chaos. Without a clear law on the question of transferability no scheme for consolidation will be effective. first step, therefore, to introduce consolidation on a large scale should be to make the law about the transferability free from ambiguity. Even the mere right to transfer will not be enough, and legal provision will have to be made to distribute rent on parts of holdings split up, so that the rent of holdings constituted by consolidation may be adjusted. It has further to be remembered that the larger the subinfeudation the greater is the difficulty. Rights of different degrees can hardly be exchanged and where occupancy rights descend lower to under-raivats of various grades there will be corresponding difficulties. A simple tenancy system being an essential condition precedent to successful consolidation, tenancy legislation in future should aim at simplifying and not complicating the land system.

Psychological change.—The next point that must be attended to is to create the psychology for the change. There must

be a will to consolidate. To create that psychology the benefits arising out of consolidation must be demonstrated. These benefits must not be merely theoretically possible but actually attainable under existing conditions. The two main directions in which benefit is possible are the saving of time and the possibility of employing better tools and appliances.

It is to be remembered that, situated as the cultivator is to-day, when he has little else to turn his energy and attention to, saving of time really has little practical significance for him. Loss of time is of little consequence to one to whom time has scarcely any value. There must therefore be provision for a larger employment of his time and the consequent increase of its value. His means again are so limited that improvements can hardly in the majority of cases be secured by him. crops that he grows-and paddy and jute must be the largest single product of the land-hardly need any great improved implements. While the total quantum of land for a group of joint cultivators is ordinarily so small that consolidation will hardly appreciably alter the position—a cultivator having an acre and half in all benefits but little if his lands say in three blocks be grouped into one. Other factors which will be discussed later must be brought into operation to create the will to consolidate, and without this will no theoretical scheme has any chance of success.

Assuming that a simple land system, an amended tenancy legislation and the necessary psychology exist, the following appear to be some of the methods by which consolidation can be carried out:—

(1) In Khasmahals and estates under the direct management of the Government, a propaganda for consolidation by voluntary exchange and the offer of facilities to allow mutation without trouble may be announced as the accepted principle. If for the estates under the Court of Wards the principle is accepted and private landlords can be induced to co-operate, a considerable

advance in consolidation of the simpler type may be made without the aid of any complicated machinery.

(2) Co-operative Consolidation Societies.—The Punjab method of consolidation which is briefly described below may sometimes bring about good results.

Preliminary propaganda work is done by the credit staff and if, in any particular area, people are found desirous of consolidating their holdings co-operatively, they communicate with the special staff maintained for the purpose. The consolidation Sub-Inspector then proceeds to the spot, camps in the village and starts intensive propaganda. He explains in detail the benefits which will accrue from consolidation. If the zemindars are convinced and are willing to join such a society they are required to sign a statement agreeing

- (a) to the principle of re-arrangement of scattered holdings so as to secure more compact blocks of fields for each owner;
- (b) to submit to any arrangement approved by two-thirds of the whole number of members in general meeting;
- (c) to permit the re-arrangement of their land in accordance with any such scheme and to give possession in accordance therewith for a period of four years;
- (d) to submit to arbitration in accordance with the bylaws disputes touching the business of the society (including disputes as to rights, boundaries, rents, responsibility for land revenue and cesses and possession of lands affected by any such scheme) that may arise during the existence of the society.

A committee is then formed from amongst the promoters. Revenue records and mutation registers are consulted and a list is prepared showing the quantity and class of land held by and the revenue paid on each, together with its respective survey numbers. A tentative scheme is then drawn up on the principle of greatest good to the greatest number, and allotment is then made to each person or group of persons, and the new allotment is marked on the village map. A general meeting of the members is then convened and final allotment of

plots is made. If the allotments are agreed to by all, the scheme becomes final. If however any member stands out the whole scheme falls through and a fresh scheme is prepared. When every member agrees a new map is prepared showing the final distribution of lands. When final allotments have been agreed to the Sub-Inspector supplies each member or group of members, as the case may be, with a parcha in which the survey number, area, class and land revenue of land held and offered for consolidation and the survey number, area, class and land revenue of land to be held in exchange are shown. With the parcha a tracing of the block showing its dimensions and boundaries is given. When the parchas are made over to the members concerned they are required to sign or record their thumb impressions in the proceedings book of the Society. An application is then made to the Revenue Officer who proceeds to the spot and sanctions mutations. The operation embraces two mutations:

- (1) where all the land is transferred to joint ownership of the members. and
- (2) where land under joint ownership is re-transferred to individuals.

The Land Records Department consider this as one mutation and a fee of four annas per holding only is charged. The new holdings are duly recorded by the Revenue Department, in the record-of-rights.

After the mutations have been recorded, the Sub-Inspector forwards all papers to the Assistant Registrar who scrutinises, examines and forwards them on to the Registrar for registration. All differences amongst the members are settled by arbitration.

It may be noted that, it is not always possible to allot every cultivator a compact block which will include all the classes of land he originally possessed. In these cases land of a particular class is taken in a block and divided amongst the members according to the area of that class they originally possessed. Thus when there are four classes of land in a village the cultivator may have four blocks of land in the new allotment. It is important to note that the basis of re-distribution is always the area of the holding and not its money value.

The circumstances in Bengal in the permanently settled tracts are radically different from those in the Punjab. In the Government Khasmahals though the conditions are more parallel, the fundamental difference lies in the fact that in the Punjab the Government is the Controller of the Irrigation Canals. In Bengal Irrigation Societies may supplement the efforts of consolidation societies where irrigation exists; but it is not always available as in riparian strips. Irrigation societies have not as yet got a permanent position in Bengal. Where the question of irrigation is not of importance some progress may be possible.

(3) Evolution of new types of villages.—To start with, all rights whatever must first be liquefied and then a distribution should be made upon a basis most conducive to the welfare of the community. The governing principles should be on the basis of the Enclosure Acts in England. The procedure will be similar to that prescribed in the Land Acquisition Act followed by re-allotment after an adjudication of classes according to priority. The machinery will be set in motion on the application of not less than one-half of the villagers.

The application of the procedure may be restricted to blocks or parts instead of being extended to entire villages at once in order, in the first instance, to gain experience of the problems that may arise and details may be modified as the result of such experience. This method however is somewhat radical and in its application great caution is needed.

(4) Co-operative Cultivation Societies.—Cultivators owning lands in one block may form themselves into a co-operative society to cultivate the land as one unit, breaking up the "ails" and the demarcating strips, converting the areas held by all the individuals into one block, and dividing the produce after meeting the cost of cultivation according to the share of each. This more or less will be the application of

the principle of group socialism for agrarian purposes. If the people can be educated to the appreciation of this principle, this system may produce very good results. It is, however, in essence based on a communistic idea and the causes which still make communism practically a failure will operate to a certain extent against its success. On the other hand cultivators are known to have combined for specific agricultural purposes—irrigation, harvesting or ploughing; and the extension of the spirit is not altogether impossible to organise. It is unnecessary to discuss details here. It has possibilities but it has practical drawbacks too which should be carefully considered.

(5) Right of pre-emption in sales of occupancy right by a neighbouring cultivating holder may have some effect.

It must be remembered that against all these the existing causes of disintegration will continue to operate.

It has been stated above that (i) consolidation of tenancies

Larger issues involved in consolidation.

will hardly have any effect on improving the methods of agricultural operation.

(ii) So far as mere grouping together of parcels of land of the same holding are concerned the quantity of land per group is so small that in the largest majority of cases the grouping will hardly make blocks of more than 2 acres. (It was found on actual enquiry in a typical West Bengal Police Station that holdings under 5 acres were 93.2 per cent. of the total). It is questionable whether this grouping will have any beneficial effect. It has been pointed out that the largest majority of the people have no other means of occupation: time hangs heavy on them and saving of time thus has little real value to Unless, therefore, the value of time is increasingly appreciated, saving of time to them means no gain. So unless and until other occupations can be found for them or agriculture can be so diversified that continuous work for them even with 2 acres of land can be found throughout the year, there is no practical utility of consolidation while it is doubtful whether

agriculture can be so diversified that the cultivator with his means can effectively take to it throughout the year.

(iii) The last process is to go on gradually increasing the size by consolidation. This, however, raises the issue as to what is going to happen to the displaced population. England may be taken as a country which embarked on large-scale consolidation to make way for the capitalistic methods of cultivation. It is worth recalling the period when consolidation under the Enclosure Acts was carried on in England. The Enclosure movement started with the visit of Arthur Young, the Secretary to the Board of Agriculture, immediately after its constitution in 1794 and went on till after the middle of the nineteenth century. This period synchronised more or less with the period of England's industrial revolution. It is on record that the substitution of enclosure for the open field system led to a very large expropriation of agriculturists. This is not the place to discuss whether the present problems of unemployment are not indirectly traceable to the movement then initiated, but it is certain that but for the simultaneous process of absorption of the expropriated tenants in the growing industries, the immediate effect of the movement would have been acute and widespread distress. Improved means of agriculture means largely the utilisation of mechanical inventions: and effective mechanical inventions certainly displace human labour. The human labour thus displaced will need to be provided elsewhere. Unless therefore arrangements for alternative occupations are possible, consolidation may lead to economic, social and even political upheavals by intensifying the problem of unemployment—a problem which in India may assume dimensions beyond control. sense it may mean ultimate good in adjusting the population to the means of subsistence from agriculture, but the process is fraught with grave dangers which cannot be contemplated with equanimity.

I do not propose to examine the alternative occupations

which are now open or will possibly be open in future, for that will be much beyond the scope of the present discussion. It is certain, however, that no large avenue is immediately available.

The conclusions may be summarised thus:—There are permanent and non-permanent causes operating in the disintegration of plots. Non-permanent causes may be removed by scientific researches and provision for better facilities for irrigation. Permanent causes, rooted as they are in the religious ideas of the people, are difficult to deal with. It may not be altogether impossible that the economic conditions may alter the social psychology. The code of religion about inheritance may be so regulated by an altered social conscience that the real property may be left intact and others may get the money value of their due shares. That however, is a matter of education, and presupposes a better financial position which can supplement or convert shares in real property immediately with or into cash.

It is not possible again so to organise the social system of the Mahomedan community that family property may get back to one hand again by intermarriage among cousins. The Hindus have definite rules about intermarriage which make in their case such a scheme impossible to work out. It may be observed that in France the Law Napoleon tends almost similarly to disintegrate the family property, but other causes, of which intermarriage with cousins is one, have tended continually to consolidate holdings into larger and larger units in spite of a disintegrating law of inheritance. (The Appendix shows the difference in the sizes of holdings in France and a typical West Bengal tract).

These are, however, matters of education, but without devising some means to counteract the permanent operative causes any attempt at consolidation will be infructuous. Consolidation of different tenancies has hardly any value from the point of view of agricultural improvement. Consolidation of parcels of the same holding in view of the small quantity

of land owned by a group, will not create conditions materially favourable to an improvement of the agricultural operations. Consolidation with a view to make larger and larger units, as well as the mere reason for consolidation which is to make larger uses of mechanical devices, will tend to the expropriation of agriculturists and displacement of human labour. Unless alternative means of occupation are possible such consolidation may lead to great economic distress.

The different methods for consolidation have been indicated. In my opinion radical or hasty action is undesirable. Certain legislative changes and permissive procedure indicated, may be introduced. The perfection of the right of transfer, the right of pre-emption of neighbouring cultivator, the familiarity with the ideas of co-operative methods of consolidation and of cultivation may be very helpful. The will to consolidate must be created. For this the efficacy and the possibility of using better appliances on large blocks should be demonstrated to the cultivators. A slow psychological and economic process may thus be introduced which will adapt itself to circumstances. A forced march will be risky; and too elaborate official machinery and intervention will be an unmixed evil and may lead to serious complications.

One may still believe that science has not yet exhausted all possibilities of research, and it may not be utopian to hope that the highest economic use of land is not inconsistent with the use of small blocks. The up-rooting of large rural population, however tempting it may appear to the urbanised advocate of capitalistic methods, may not prove the one effective remedy even for the most economic use of land and should not be hustled through nor should a scheme with such possibilities be adopted without circumspection.

APPENDIX.

		France.	Garbeta,
Under 5 acres	•••	10 per cent.	93.2 per cent.
From 5 to 15 acres	•••	15 per cent.	4.8 per cent.
From 15 to 25 acres	•••	40 per cent.	'7 per cent.
Over 25 acres	•••	35 per cent.	1.8 per centa

BEJOY BIHARI MUKHERJI

MISTS

You were the dawn and the awakening;
As you are now the reflected light in the darkening sky.
You are gone but memory holds dimly a little of your radiance
All else is gray and silent,
You built a world around you, peopled with dreams,
And hope wandered bright toward the gate thereof
Now all that is ended; there is no hope nor light
Love is a beautiful thought—no more than that.
Like the whisper of wind or far away music
Some magic that cannot be held
Grasped in the hands there is nothing
Only the wet mist the rainbow left.

LINWELL ROHL

Reviews

The Natya-sastra, with the Commentary of Abhinavagupta, edited with a preface, appendix and index by Manavalli Ramakrishna Kavi, Vol. I (Chs. 1-7). Central Library, Baroda (Gaekwad's Oriental Series, No. XXXVI), 1926.

Students of Sanskrit Dramaturgy and histrionic art know already the great importance of the Nātya-ŝāstra of Bharata, which is admittedly the earliest standard work on the subject. The only edition of the entire work, consisting of thirty-seven chapters, is the one published in 1894 by the Nirnay Sagar Press, Bombay, in the Kavyamala Series (No. 42); but it is long, out of print and has become exceedingly scarce. Grosset edited the text in transliteration in 1898 up to the end of Ch. 14; and to him and Regnaud we owe also the separate publication of Chs. 15-17 and 28. None of these editions, which were based on admittedly inadequate materials, can be said to be final, and there was still room for a complete critical and scholarly edition of the text. The only available commentary on the text is that by Abhinavagupta. Only one chapter of it (Ch. vi) has so far been published. It was, therefore, a happy idea to plan the publication of Bharata's text with its equally famous commentary in the Gaekwad's Series, whose enlightened patronage alone can finance an extensive publication like this.

The record of this well-known Series, which has now passed its tenth anniversary, is an extremely creditable one, and none of its publications in Sanskrit and Prakrit has been without merit or interest. The publication of the Nātya-Šāstra, therefore, in this series was eagerly awaited by all Sanskrit scholárs interested in the subject. The first volume of the edition, containing Chs. i.vii, is now before us; and three more volumes are promised to complete the work. Manuscripts of the commentary on Ch. vii, however, could not be procured, and of this chapter only the text is printed.

From the editor's own account, we are happy to learn that he was extremely fortunate in obtaining ampler manuscript-material than was vouchsafed to any of its earlier editors; but a close examination of the text fails to convince us that he has been able to make proper use of his good fortune, especially in the commentary portion. The publication is

an extremely valuable one, but its value is seriously impaired by its technical shortcomings. As I have already dwelt upon some of these defects in an extensive review of the edition in the *Indian Historical Quarterly*, Vol. III, No. 4, I may be pardoned for abstaining from repetition. The chief points which I wanted to make out in that review may, however, be briefly indicated here.

The editor's statement in the preface regarding two recensions of the text and their relative priority as well as his remarks about other versions of the work have not at all been substantiated. As a matter of fact, the editor makes these statements and leaves them in the air! If he wanted to establish his hypothesis regarding these recensions, it would have been more satisfying if he had given full apparatus criticus along with the text and other relevant data, in order to enable us to judge of the matter. In stating that the Southern version was older than the Northern and that earlier Northern commentators like Udbhata, Lollata and others made use of it, he really begs the whole question.

The treatment of the text itself is not impeccable; but this may be excused in a difficult text and in its equally difficult commentary. But what is more surprising is that there is no evidence that enough care has been taken to collate the MSS. and editions, and weigh their readings properly, so as to constitute a sound critical or even reliable text. regrettable that the editor should plead "limitation of time, purse and space "in extenuation. The more closely one scrutinises the text, the more evident it becomes that the text is often uncritically copied from the MSS., and the readings adopted are obviously eclectic. One need not be severe and find fault with inaccuracies and mistakes which are inevitable in a work like this; but one surely has a right to demand thorough and conscientious labour and truly critical instinct in the handling of an important and difficult text. All that we can say is that Mr. Kavi's text has not dispensed with the necessity of consulting at every step the readings of the earlier edition of Grosset or even the imperfect Kāvyamālā edition.

But what is more serious is that in some places there are considerable additions, alterations and emendations of the text without any indication of the fact. This procedure cannot be too highly condemned, especially as the text is delivered with an authority in a well-reputed series. It is conceded that the unacknowledged additions and emendations are made with the best possible intentions or that they are not always of a very serious or extensive character; but in the mass they are enough to render the work utterly unreliable. The limited space at our disposal does not allow us to enter into details; but the reader will find enough

examples to justify the apparently severe remarks made here in my more extensive review of this work referred to above.

Even making allowance for the limitations of Indian printing and the difficulties under which the proofs were corrected by the editor from a distance, one must confess that the misprints and slips with which the book swarms gives one the impression that it badly wants a thorough revision. It does credit neither to the editor nor to the Series. And for some of these lapses the editor cannot altogether escape personal responsibility.

The addition of the illustrations prepared from the figures on the Nataraja temple at Cidambaram is indeed a very good idea; but one only wishes that the execution of them had not been so clumsy and given them an appearance of hediousness which is certainly not a feature of oriental art.

The undertaking of an edition of this difficult text with its learned commentary does credit to an already well-established series; but care should have been taken that the edition was worthy of its standard of excellence. It may be urged that it is better to have the book as it is and thank the editor, rather than not have it at all,—but oh for the much needed critical and scholarly edition!

S. K. DE

Kautilya: A Critical and Historical Study—by Narayanchandra, Bandyopadhyay, M.A., Lecturer in the Department of History and Anthropology, Calcutta University, published by Messrs. R. Cambray & Co., 15 College Squara, Calcutta, price Rs. 7-8, pages 328.

Mr. Bandyopadhyaya's several works on Ancient Indian Economics and Politics have not only given him a position among Indologists, but also contributed liberally to our knowledge of India's past. The present volume from his pen is a study of the greatest work on Indian Politics, viz., the Arthasastra of Kautilya. The author has acquitted himself vary creditably in respect of exposition as well as of criticism, and this is a task which means a thorough command of historical and theoretical data. Since the publication of the excellent productions of Prof. Aiyangar and Dr. Law, very little has been done towards revealing further the texture of the master-mind which is reputed to have helped the establishment of the vast Maurya Empire. Mr. Bannerjee's attempt is, therefore, timely and welcome in view of the rapid strides the subject is taking day after day.

It is very well-planned, all the salient features of the Kautilyan theories of life, society and politics having been arranged in their proper places. In the five divisions of the book great care is taken to present the problems systematically and in a connected way. Moreover, they are brought in relation to other theories and systems both ancient and modern. The introductory part is masterly in its treatment of the historical figure of Kautilya, the authenticity of the Arthasastra, the growth of the aubject and its bearing on life in general of the time in which the work was produced. It is also to be noted that the most trustworthy sources have been tapped in support of the statements made by the writer and many new points are brought within sight together with valuable suggestions.

The Kautilyan view of life is very ably upheld in Book I, in contrast to those of Brihaspati and Vatsyayana (p. 29ff.). This is exactly what is needed for the proper exposition of political philosophy away from mere It shows that the study of the Arthasastra is records of State affairs. taking a different and healthy turn, and this significant phase of Kautilya's teachings is probably given for the first time to the public. the ethical importance of Kautilya's doctrines comes out fully in his political ideas, Mr. Banneriee has rightly emphasised the moral concepts of the Arthasastra before the social and political, as primarily consisting in discipline, or, in Plato's sense, of faith in the education of human nature. "To attain such a state of excellence man must undergo discipline..... The necessity of vinaya, or discipline, has been more than emphasised by Kautilya'' (p. 38). If this one fact is remembered consistently the state-craft of the Arthasastra might not appear so crooked as it is generally supposed to be and a re-interpretation of the whole subject may be A striking instance of social justice is very skilfully cited and possible. explained by Mr. Bannerjee in the case of slavery in Kautilya's time. According to the spirit of the Arthasastra nobody was a slave or could be made into one, for by accepting even the Sudra within the pale of Aryan civilization, the author of the Arthasastra did away with, unlike his great contemporary Aristotle, the very theory of this inequitous institution (p. 210ff.). "In regard to slavery, Kautilya's attitude stands as a glowing light of liberalism and humanity.....characterising it as a custom which could exist among the Mlecchas.....According to him the Sudra was equally an Arya with the members of the higher castes" (p. 211). On the points mentioned here Hindu thought of the Maurya time shows great advance in social theory.

Book III is analytical in the main and treats of difficult political and administrative topics. The legal theory of the Royal Person is a careful

exposition of one of the problems. "The King according to Kautilya was the embodiment of all authority. This authority he derived from Law-law which was the embodiment of all order, law which was the essence of the regulative maxims of the cosmical order, law the eternal and the universal.....The King, the master of all men, was equally subject to it along with his subjects " (p. 67). Again Mr. Bannerjee's finding is very refreshing regarding village affairs in the Arthasastra. "Villages were," he says, "free from active jurisdiction of the royal officials" (p. 256). This is an authoritative indication of independence in social organisation. The Economics of Ancient India by the writer gives a good deal on this interesting matter, which deserves to be read in The sections on Rural Autonomy and Civil Law are this connection. really illuminating and go to form the most important parts of Book IV. The retrospect furnishes useful information and criticism.

As an exposition of the Arthasastra and detailed work on its principles the volume ought to be studied by all who care for Sanskritic culture. The quotations from original Sanskrit will be found very helpful but it is unfortunately becoming a notorious craze after the Allahabad style to over-burden writings with them. Written in a lucid style Mr. Bannerjee's productions are always attractive and interesting, though full agreement may not be possible with some of his opinions on debatable points. The ground covered by him is practically extensive and he deserves praise for the fine and successful execution of his work.

N. C. GANGULY

I. Chandidasa—Les amours de Radha et de Krichna traduites du Bengali par Manha et Nogendra Nath Chandra—178 pages—Librarie Stock—Paris.

Rabindra Nath has created a certain prestige for the Bengali literature on the continent and people with literary taste are now getting interested in it. There is now a desire, however feeble it may be, to get acquainted with the masterpieces not only of Tagore but also of our ancient writers. It is, therefore, gratifying to see a French lady publishing the first translation of the Padāvali of Chandidāsa in France. Though she has used a pseudonym it is not difficult to see that she had been in Bengal for some time. As she was not familiar with the language of Chandidāsa she had to find out a collaborator and she found an able one in Mr. Chandra.

The work is well presented and is published by one of the premier publishers of France. We can very well imagine with what great eagerness the French people of literary taste will receive this book. There are many orientalists in Europe but they are not generally supposed to have any literary appreciation. It is difficult to find there many people with a real literary appreciation undertaking the work of translating our masterpieces into their own language. We, therefore, congratulate Man'ha on her admirable enterprise. It is needless to speak much on the services rendered by Mr. Chandra, as he has only done his duty as a Bengali in helping a lady from a distant shore in the execution of this difficult task.

It is necessary to point out certain imperfections in the translation of a representative work like this. The avant-propos of the work is too poor. The attempt to define the place of Chandidasa's Padāvali in our-literature is unsatisfactory. The translators should have borne in mind that the work is meant for a reading public having no idea about our literature but have only read or heard about the works of Tagore.

The translators nowhere mention the edition of the *Padāvali* on which the present translation is based,—there are so many editions of it and the arrangement also do not agree with each other very often. There are also important differences in reading. It was, therefore, absolutely necessary to mention the edition utilised.

Transcription of Bengali names is not satisfactory. It would have been better to adopt the method of transcription used by the French orientalists or to use a consistent method suited to the general reader. A Frenchman would read Chandidāsa, Shandidasa. When Krishna is written Krichna, Chandidāsa should be written Tchandidāsa because ch is pronounced sh in French. According to this Vachana will be read Vashana. There are many other instances of this inconsistency, statis is written Dakar-Nava (p. 15), it should have been written either Dakarnava or Daka-arnava. What is Dakar vachana? It should be Daker-vachan, Dharma mayal should be Dharma-mangal, Cunyapurana should be çunya-purāna, Vinichaya should be Vinischaya (p. 15).

P. 14 Prakrita was not a "langue populaire parlée par les buddhists" but only a "langue parlée" of that period. Manu in his laws never prohibited the Brahmins to recite the sacred texts in "langue bengal." It never existed in his time!

The first three parts of the translation namely "l'aube" "Raslila" and "le voyage à Mathura" are on the whole good though sometimes

unusual liberty has been taken in "emondant bien des branches" as "aux esprits Européens Chandidasa aurait paru tonffu."

But as regards the last section—'la reunion'' the translators have not been "fidèle à la lettre," as promised in the preface; the meaning has been sometimes wholly changed: to compare only p. 165—

"প্ৰভাত সময়ে কাক কোলাকুলি"—It is not "s'acoupler!" but "s'embrasser."

It is needless to point out all the inaccuracies in translation but we are sorry to find that in the last section there are many of them.

We do not, however, want to condemn the work but our complaint is that the translators have not been always conscious of their responsibilities. No translator can render the original beauty of the *Padāvali*, and its music, but they should, however, keep to the sense of the original. It is not at all just to mutilate the finest images and expressions of Chandidāsa for making them suitable to the European public. We hope the translators will improve the work when need for a second edition will arise. In spite of its imperfections the present work is a commendable attempt to make the sweet songs of Chandidāsa accessible to the French-reading public. As such the translators deserve our hearty praise.

P. C. B.

University of Calcutta

Latest Publications

- A History of Indian Literature, by Prof. M. Winternitz, Ph.D., Professor of Indology and Ethnology at the German University of Prague (Czechoslovakia), Vol. I, containing Introduction, Veda, National Epics, Purāṇas and Tantras. Translated from the Original German by Mrs. S. Ketkar and revised by the Author. Only authorised Translation into English. Royal 8vo. pp. 634. Rs. 10-8.
- Chronology of Ancient India (From the Times of the Rig-Vedic King Divodāsa to those of Chandragupta Maurya, with Glimpses into the Political History of the Period), by Sita Nath Pradhan, M.Sc., Ph.D., Brihaspati. Royal 8vo. pp. 291+30. Rs. 6.

In this interesting and erudite thesis on the Chronology and Political History of Vedic and Buddhist India enormous masses of evidence derived from Vedic, Epic, Puranic, Buddhistic, Jain, Epigraphic and other sources have been collated, compared and contrasted and Ancient Indian Chronology built up. Having been completed in 1921, it is a pioneer work in its own way and will be of invaluable assistance and absorbing interest to all students of Ancient Indian History.

Yedanta Paribhasa of Dharmarajadhwarindra with commentary Paribhashaprakashika by Mahamahopadhyay Anantakrishna Sastri, Lecturer in Vedanta and Mimansa, Calcutta University, with a Foreword by Prof. S. Radhakrishnan, M.A. Royal 8vo. pp. 462. Rs. 6.

- Hinayana and Mahayana and Origin of Mahayana Buddhism, by R. Kimura. Royal 8vo. pp. 203. Rs. 2-4.
- Rights and Duties of the Indian Citizen (Kamala Lectures 1926), by the Right Hon'ble Mr. V. S. Srinivasa Sastri, P.C. Demy 8vo. pp. 116. Rs. 1-8.
- Current International Co-operation, by Manley O. Hudson. D/Crown 16mo. pp. 156. Rs. 2.
- Sir Asutosh Mookerjee Silver Jubilee Commemoration Volumes—Vol. III (Orientalia), Part III, Royal 8vo. pp. 546. Rs. 11-4.
- Indian Railway Economics, Part I, (Revised Edition), by Mr. S. C. Ghose. Demy 8vo. pp. 128. Rs. 2.
- Proceedings of the First Philosophical Congress, 1925, Royal 8vo. pp. 452.
- Calcutta University Questions for the year 1921, Demy 8vo. pp. 954.

BOOKS IN THE PRESS IN DECEMBER, 1927

- 1. Notes on Manu Smriti, by Mahamahopadhyay Dr. Ganganath Jha, M.A., D.Litt.
- 2. History of Indian Medicine, Part III, by Girindranath Mookerjee, B.A., M.D.
- Banimandir (in Bengali), by Sasankamohan Sen, B.L.
- 4. University Calendar for 1928, Part I.
- 5. Descriptive Catalogue of Old Bengali Manuscripts in the University Library, Vol. III, edited by Manindramohan Bose, M.A.
- 6. History of Indian Literature, Vol. II, by Prof. M. Winternitz, translated into English by Mrs. S. Ketkar.
- 7. Newness of Life (Stephanos Nirmalendu Lectures), by Prof. M. A. Cannev.
- 8. Desinamamala, edited by Muralydhar Banerjee, M.A.
- 9. Spirit of French Civil Law (Tagore Law Lectures, 1923-1924), by Prof. Henry Solus.
- 10. Elements of the Science of Language, by Prof. I. J. S. Taraporewala, B.A., Ph.D.
- 11. Siddhanta-Sekhara, by Babua Misra, Jyotishacharyya.
- 12. Visuddhimaggo, by Prabodhchandra Das, M.A.
- 13. Asamiya Sahityer Chaneki, Vol. I, Part I, edited by H. C. Goswami, B.A.
- 14. Rural India, by Nagendranath Gangulee, Ph.D. (London).
- 15. Harilila (in Bengali), edited by Rai Bahadur Dineschandra Sen, B.A., D.Litt., and Basantaranjan Ray. Vidwatvallabh.
- 16. Indian Political and Cultural Influence in Cambodia, by B. R. Chatterjee, Ph.D. (Lond.), D.Lit. (Punjab).
- 17. Journal of the Department of Science, Vol. IX.
- 18. Journal of the Department of Letters, Vol. XVII.
- 19. Surya-Siddhanta.
- 20. Yoga Philosophy in relation to other systems of Indian Thought, by S. N. Dasgupta, M.A., Ph.D.
- 21 Eastern Bengal Ballads, Vol. III, Part I, edited by Rai Bahadur D. C. Sen, D.Litt.

- 22. Vishnudharmottaram, by Stella Kramrisch, Ph.D.
- 28. Notes on Kavikankan Chandi, Part II, by Charu Bandyopadhyay, B.A.
- 24. Panini, by late Rajanikanta Gupta.
- 25. University Question Papers for 1923.
- 26. University Question Papers for 1924.

LIST OF PUBLICATIONS

(Continued from previous issue.)

LANGUAGE AND LITERATURE

OTHER INDIAN VERNACULARS

Typical Selections from Oriya Literature. Edited by Bijaychandra Mazumdar. Vol. I. Royal 8vo. pp. 303. Rs. 11-4.

Royal 8vo. pp. 220. Rs. 11-4. Do. Vol. II.

Do. Vol. III. Royal 8vo. pp. 519. Rs. 11-4. Rs. 22-8 for the full set of 3 Vols.

Asamiya Sahityar Chaneki (Typical Selections from the Assamese Literature), compiled by Pandit Hemchandhra Goswami, M.R.A.S., F.R.A.S., of Assam Civil Service and Editor of "Hema-Kosha."

Selections from Hindi Literature, compiled by Lala Sita Ram. B.A., Sahityaratna.

Book I—Bardic Poetry—Contains extracts from the Prithirai Rasau of Chand Bardai, the Bisaldev Rasau of Nalha, the Birsingh-Charit of Kesav Das, the Sivaraj Bhushana and the Siva Baoni of Bhushan, the Chhatra Prakash of Gore Lal, the Raj Bilas of Man, the Jang Nama of Murlidhar, the Hamir Rasau of Jodh Raj, the Sujan Charit of Sudan, and the Himmat Bahadur Birdavali of Padmakar. Royal 8vo. pp. 351. Rs. 6-0.

Book II—The Krishna Cult—In this book the compiler has

given extracts from the writings of the followers of Vallabhacharya including Sur Das and others commonly known as Asht Chhap, Nabhaji Gokul Nath, the oldest prose writer, and Dhruva Das. These writers have described loves of Krishna and Radha in a religious spirit and have nothing in common with ordinary writers of erotic Poetry. No other book has yet been published in Hindi in which the curious reader may find the hymns of each of the Asht Chhap with notices of the authors. Royal 8vo. pp. 383. Rs. 6-0.

Book III-Tulsi Das whom Sir George Grierson calls the brightest star in the firmament of Indian Mediæval poetry stands unapproached and unapproachable in his niche in the Temple of Fame.' His works in extract have been set up in a book of their own with an introduction containing a short life of the poet and an account of his various works. Royal 8vo. pp. 291.

Rs. 6-0.

BOOK IV—With a learned Foreword by Mahamahopadhyaya Ganganath Jha, M.A., D.Litt., Vice-Chancellor, University of Allahabad. The Saints.—The extracts given in this book are from the teachings of nineteen great saints including Swami Ramanand, Kabir, Guru Nanak, Guru Teg Bahadur, Guru Govind Singh and Mira Bai. Royal Svo. pp. 390. Rs. 6-0.

Book V—Arts Poetica—This book deals with the Science of poetry and the extracts describe the various emotions and passions which constitute the essence of poetical compositions, to which Hindu writers have added fanciful classifications of women, technically called the Nayika-bhed. Royal 8vo. pp. 275. Rs. 3.

Book VI, Part I—Other Poets (with a brief history of the Hindi Language)—In this book extracts are given from the writings of Vidyapati, Malik Mohammad Jaisi, Kesava Das, Rahim, Raskhan, Mubarak, Usman, Senapati, Bihari Lal, Bhupati, and

Sabal Singh Chauhan. Royal 8vo. pp. 324. Rs. 3.

Book VI, Part II—Other Poets—Begins with a History of the Hindi Literature with an appendix containing notes on the Awadhi, the Braja Bhasha, the Punjabi, the Maithili, the Marwari, the Jain Hindi, and the Urdu Literatures and gives extracts from the writings of 19 well-known Hindi writers ending with the great Haris Chandra of Benares. Royal 8vo. pp. 406. Rs. 6. Complete set (Books I-VI) Rs. 30.

Selections from Classical Gujarati Literature, Vol. I, by I. J. S. Taraporewala, B.A., Ph.D., Professor of Comparative Philology and Lecturer in Gujarati in the Calcutta University. Royal 8vo. pp. 464. Rs. 5-0.

4. CLASSICAL TEXTS

(Prescribed by the University for different Examinations.)

- * Matriculation Arabic Selections, complied by Maulavi Muhammad Irfan, M.A. Royal 8vo. pp. 80. Rs. 1-12.
- * Matriculation Persian Selections, compiled by Agha Muhammad Kazim Shirazi. Royal 8vo. pp. 97. Rs. 1-12.
- * Matriculation Selections in Classical Tibetan. Royal 8vo. pp. 100. Rs. 2-0.
- * Matriculation Sanskrit Selections, I (Prose). Crown 8vo. pp. 108. Re. 1-0.
- * Do. II (Poetry). Crown 8vo. pp. 221. As. 10.
- * I.A. Arabic Selections, compiled by Maulavi Muhammad Irfan, M.A. Royal 8vo. pp. 98. Rs. 2-0.

- * I.A. Persian Selections, compiled by Agha Muhammad Kazim Shirazi. Royal Svo. pp. 145. Rs. 2-0.
- * I.A. Sanskrit Selections. Crown 8vo. pp. 195. Rs. 2-0.
- * B.A. Honours Arabic Selections. Royal 8vo. pp. 144. Rs. 2-8.
- * B.A. Pass Arabic Course, I (old Selections). Royal 8vo. pp. 88. Rs. 1-8.
- * Do. II. Royal 8vo. pp. 80. Rs. 1-8.
- * B.A. Pass Arabic Selections, compiled by Maulavi Md. Irfan, M.A. Royal Svo. pp. 75. Rs. 1-8.
- * B.A. Honours Persian Course. Royal 8vo. pp. 314. Rs. 2-8.
- * B.A. Pass Persian Course (old Selections). Royal 8vo. pp. 157. Rs. 1-12.
- * B.A. Pass Persian Selections, compiled by Agha Muhammad Kazim Shirazi. Royal 8vo. pp. 245. Rs. 2-0.
- * M.A. Persian Course. Demy 8vo. pp. 225. Rs. 2-8.
- Gowhar-i-Murad, edited by Aga Mahammad Kazim Shirazi Royal 8vo. pp. 120. Rs. 3.
- Diwan-i-Nasir-i-Khusraw, edited by Aga Mahammad Kazim Shirazi. Royal 8vo. pp. 77. Rs. 2.

5. TIBETAN

She-rab-dong-bu, by Major W. L. Campbell, C.I.E. Royal 8vo. pp. 137. Rs. 6-12.

6. ENGLISH TEXTS, &c.

- * Selections from the Bible, Part I. Crown 8vo. pp. 498. Rs. 2-8.
- * Do. Part III. Crown 8vo. pp. 489. Rs. 2-8.
- * Shakespeare's Comedy of Errors, edited by Rev. J. C. Scrimgeour, M.A. Crown 8vo. pp. 187. Rs. 1-4.

- Ben Jonson's Volpone or the Fox. Re. 1-0.
- A Syllabus of Poetics, by Dr. H. Stephen, (Second Edition, Revised and Enlarged). Demy 8vo. pp. 300. Rs. 3. [Rs. 2 for Post-Graduate Students of the Calcutta University].
- On the Poetry of Matthew Arnold, Robert Browning and Rabindranath Tagore, by A. C. Aikat, M.A. Royal 8vo. pp. 346. Rs. 7-8.
- Othello, the Moor of Venice. Edited by Rev. J. C. Scrimgeour, M.A. Crown 8vo. pp. 281. Rs. 2-0.
- * Lahiri's Select Poems. Crown 8vo. pp. 205. Rs. 1-8.
- * Select Readings from English Prose. Crown 8vo. pp. 224. Rs. 1-8.
- * Selections from W. Irving. Crown 8vo. pp. 331. Rs. 1-12.
- * Intermediate Prose Selections. Crown 8vo. pp. 412. Rs. 3-0.
- * Intermediate Poetical Selections. Crown 8vo. pp. 360. Rs. 3-0.

VII. MATHEMATICS

- † Matrices and Determinoids, Vol. I (Readership Lectures delivered at the Calcutta University), by C. E. Cullis, M.A., Ph.D., D.Sc. Sup. Royal 8vo. pp. 442. English price 24s. net.
- † Matrices and Determinoids, Vol. II. Sup. Royal 8vo. pp. 573. English Price 42s. net.
- † Matrices and Determinoids, Vol. III, Part I, Royal 8vo. pp. xx+682. English price £3 3s. net. Indian price Rs. 45.
- † Chapters on Algebra (being the First Three Chapters of Matrices and Determinoids, Vol. III), by C. E. Cullis, M.A., Ph.D., D.Sc. Sup. Royal 8vo. pp. 191. Rs. 11-4.
- † Functions of Two Variables, by A. R. Forsyth, F.R.S. Sup. Royal 8vo. pp. 300. Rs. 11-4.

^{*} Text-Book.

† The right of publication of this book is held by and copies may be had of the Cambridge University Press, Fetter Lane, London, E.C. 4.

- Analytical Geometry of Hyper-spaces, Part I (Premchand Roychand Studentship thesis, 1954), by Surendramohan Gangopadhyay, D.Sc. Demy 8vo. pp. 93. Rs. 1-14.
- Do. Part II. Demy 8vo. pp. 121. Rs. 3-12.
- Theory of Higher Plane Curves, Vol. I, by Surendramohan Gangopadhyay, D.Sc. Second Edition (thoroughly revised and enlarged). Demy 8vo. pp. 413. Rs. 6-8.
- Do. Vol. II. Second Edition, thoroughly revised and enlarged. Demy 8vo. pp. 408. Rs. 4-8.

This Volume deals with the application of the theory in studying properties of cubic and quartic curves.

- Parametric Co-efficient (Griffith Memorial Prize, 1910), by Syamadas Mukhopadhyay, M.A., Ph.D. Demy 8vo. pp. 31. Rs. 3-0.
- Vector Calculus (Griffith Memorial Prize, 1917), by Durgaprasanna Bhattacharyya, M.A. Demy 8vo. pp. 91. Rs. 3-0.
- Solutions of Differential Equations (Premchand Roychand Studentship thesis, 1896), by Jnansaran Chakravarti, M.A. Demy 8vo. pp. 54. Rs. 3-12.
- Reciprocal Polars of Conic Sections (Premchand Roychand Studentship thesis, 1900), by Krishnaprasad De, M.A. Demy 8vo. pp. 66. Rs. 3-0.
- Khandakhadyakam, edited by Pandit Babua Misra, Jyotishacharyya, Demy 8vo. pp. 217. Rs. 2-0.

VIII. SCIENCE

1. PHYSICS AND CHEMISTRY

- Progress of Physics, by A. Schüster, D.Sc. Demy 8vo. pp. 174. Rs. 3-15.
- Do. (for Registered Graduates). Rs. 2-4.
- Theory of Electro-Magnetism, by G. J. Walker, M.A., D.Sc., F.R.S. Demy 8vo. pp. 60. Rs. 3-6.
- Do. (for Registered Graduates). Rs. 1-8.
 - The book puts some of the most important developments of electro-magnetic theory into a connected and convenient form.

- * Optical Theories, by D. N. Mallik, B.A., Sc.D. Demy 8vo. pp. 191. Rs. 8-1.
- [†] The Principle of Relativity, by M. N. Saha, D.Sc., and S. N. Bose, M.Sc. (with a Historical Introduction by P. C. Mahalanobis). Demy 8vo. pp. 248. Rs. 4-8.
- Molecular Diffraction of Light, by C. V. Raman, M.A., D.Sc., F.R.S. Demy 8vo. pp. 113. Rs. 3-0.
- Organic Theo-compounds, by Sir P. C. Ray, Kt., C.I.E., D.Sc., Ph.D. Royal 8vo. pp. 74. Rs. 1-8.

2. BOTANY

Indian Medicinal Plants, by Lieut.-Col. K. R. Kirtikar, F.L.S., I.M.S., and Major B. D. Basu, I.M.S. (Retd.) Nicely bound in 2 Vols. Plates kept in nice cardboard cases. Rs. 275-0.

3. MEDICINE AND SURGERY

- Chemistry and Toxicology of Nerium Odorum with a description of a newly separated Principle. (Coate's Memorial Prize, 1901), by Rai Bahadur Chunilal Basu, M.B., F.C.S. Demy 8vo. pp. 32. Rs. 3-12.
- Terminalia Arjuna (Coate's Memorial Prize, 1908), by Lalmohan Ghoshal, L.M.S. Rs. 3-12.
- Diabetes, by Indumadhab Mallik, M.A., M.D., B.L. Demy 8vo. pp. 43. Rs. 3-12.
- Studies on Hæmolysis (1st edition), by U. N. Brahmachari, M.A., M.D., Ph.D. Demy 8vo. pp. 71. Rs. 4-8.
- **Do.** (2nd edition). Rs. 4-8.
- Surgical Instruments of the Hindus, Parts I, Demy 8vo. pp. 476, and II, Demy 8vo. pp. 172, by Girindranath Mukhopadhyay, Vishagacharyya, B.A., M.D., F.A.S.B. (Griffith Memorial Prize, 1909). Rs. 9-0.
- Do. (For Members of the Senate). Rs. 6-0.

^{*} The right of publication of this book is held by the Cambridge University Press.

† The sale of the book is restricted within India.

History of Indian Medicine, by the same author. With a foreword by Sir Asutosh Mookerjee, Kt., C.S.I., etc. (Griffith Prize Essay for 1911).

Vol. I, Demy 8vo. pp. 403. Rs. 6.

Do. Vol. II, Demy 8vo. pp. 433. Rs. 6.

Bhela Samhita (same as Vol. VI of the Journal of the Department of Letters). Royal 8vo. pp. 286. Rs. 9.

4. ANTHROPOLOGY

- Lectures on Ethnography, by Rao Bahadur L. K. Ananta-krishna Iyer. Royal 8vo. pp. 302. Rs. 6-0.
- First Outlines of a Systematic Anthropology of Asia, by V. Giuffrida-Ruggeri (translated from Italian by Haranchandra Chakladar, M.A.). Royal 8vo. pp. 110. Rs. 1-8.
- Hos of Seraikella, Part I., by Anathnath Chatterjee, M.B. B.S., and Tarakchandra Das, M.A., Royal 8vo., pp. 94. (Profusely illustrated). Rs. 2.
- The Aborigines of the Highlands of Central India, by B. C. Mazumdar, B.L. Demy 8vo. pp. 90. Rs. 1-8.

IX. SIR ASUTOSH MOOKERJEE SILVER JUBILEE COMMEMORATION VOLUMES

Yolume I, Rs. 11-4.

Yolume II, Science. Rs. 11-4.

Yolume III, Orientalia, Part I. Rs. 11-4.

Yolume III, Orientalia, Part II. Rs. 11-4.

Volume III, Orientalia, Part III, Rs. 11-4-0.

X. SERIALS, PERIODICALS, AND ANNALS

University Extension Lectures (1915-1916) (First Series). Demy 8vo. pp. 162. As. 12.

Convocation Addresses (complete set). Rs. 10-0.

Part I, 1858-1879. Demy 8vo. pp. 408.

Part II, 1880-1898. Demy 8vo. pp. 442.

Part III, 1899-1906. Demy 8vo. pp. 222.

Part IV, 1907-1914. Demy 8vo. pp. 360.

Part V, 1915-1923. Demy 8vo. pp. 545.

Each Part Rs. 5.

- Journal of the Department of Letters. —Sixteen volumes have been published. Rs. 9 each.
- Journal of the Department of Science.—Eight volumes have been published. Rs. 9 each.
- Calcutta Review (Estd. 1844; Third Series 1921).
- University Calendar for the year 1927. Containing (1) list of members constituting the Senate, Syndicate, Faculties, Post-Graduate Councils, Boards of Examiners, etc., (2) Full information regarding Endowments for Professorships, Lecturerships, Readerships, Fellowships, Research studentships, Scholarships, Prizes and Medals, (3) Descriptions of affiliated institutions, and lists of recognised schools, (4) Lists of text-books for the years 1927 and 1928, (5) Rules for Examinations, (6) List of publications of the Calcutta University, etc., etc., Demy 8vo. pp. 1024. Rs. 7-8.
- Do. for the year 1926. Demy 8vo. pp. 901. Rs. 7-8.
- Do. for the years 1924 and 1925. Demy 8vo. pp. 996. Rs. 7-8.
- Do. for the years 1922 and 1923. Demy 8vo. pp. 861. Rs. 7-8.
- Do. for the years 1920 and 1921. Demy 8vo. pp. 872. Rs. 7-8.
- Vol. I (containing the list of Graduates—M.A.'s 1865-1917; B.A. Hons. in order of merit, 1885-1917; B.A.'s in alphabetical order, 1858-1918, etc.). Demy 8vo. pp. 1108. Rs. 7-8.

- University Calendar for the years 1918 and 1919, Part II, Yol. II (containing the list of Graduates in Arts, Science, Law, Medicine, and Engineering, 1918 and 1919; Under-graduates, 1917 to 1919). Demy 8vo. pp. 1048. Rs. 7-8.
- Do. Part II—Supplement for 1920 and 1921 (containing list of Graduates in Arts, Science, Law, Medicine and Engineering in 1920 and 1921). Demy 8vo. pp. 975. Rs. 7-8.
- Do. Supplement for 1922 and 1923 (containing the list of Graduates in Arts, Science, Law, Medicine and Engineering in 1922 and 1923). Demy 8vo. pp. 1017. Rs. 7-8.
- University Calendar for the year 1924, Part II, Yol. I (containing list of Graduates in Arts, Science, Teaching, Law, Medicine, and Engineering up to the year 1923).

 -Demy 8vo. pp. 1612. Rs. 10.
- Do. for the year 1924, Part II, Vol. II (containing list of Graduates in Arts, Science, Teaching, Law, Medicine, and Engineering in 1924, and list of Under-graduates, 1924). Demy 8vo. pp. 528. Rs. 5-0.
- University Regulations, (Revised edition, with amendments up to April, 1927). (Containing the Acts and the Regulations regarding (1) Constitution of the Senate, Syndicate, Faculties, Boards, etc., (2) Election of Fellows, (3) Affiliation of Colleges and Schools, (4) Admission of students to Schools and Colleges, (5) Admission of candidates to all Examinations and Degrees, (6) Syllabuses of studies for Examinations, etc., etc.). Demy 8vo. pp. 546. Rs. 3-12.
- University Question Papers for the Examinations in Arts, Science, Law, Teaching, Medicine, Engineering, etc., for the years 1917, 1918, 1919 and 1920, bound in four volumes. Each Volume Rs. 4-8.
- Calcutta University Proceedings of the Councils of Post-Graduate Teaching, 1917. Rs. 4-8.

Calcutta University Proceedings of the Councils of Post-Graduate Teaching, 1918-1923. For each year Rs. 3-0.

Do. Do 1924. Rs. 3-0.

Catalogue of Books in the University Library:

- I. English Literature. Rs. 1-8.
- II. History (including Biography, Geography and Travels). Royal 8vo. pp. 212. Rs. 1-8.
- III. Social Science, Part I. As. 4.
- IV. Descriptive Catalogue of Bengali Manuscripts, Vol. I. Edited by Basantaranjan Ray, Vidvadvallabh and Basantakumar Chatterjee, M.A., Demy 4to. pp. 252. Rs. 3.

Contains short description of 286 of the large collection of Bengali MSS, in the Calcutta University Library.

V. Pischel Collections. Re. 1-0.

Agents for sale of University Publications—

For sale outside India-

MESSRS. LONGMANS, GREEN & Co., LTD.

London House—39, Paternoster Row, London, E.C. 4. American House—55, Fifth Avenue, New York.

For sale in India-

- Calculta-(1) Messrs. R. Cambray & Co., 15, College Square.
 - (2) ,, Chuckervertty, Chatterjee & Co., Ltd., 15, College Square.
 - (3) ,, The Kamala Book Depot, Ltd.,
 15. College Square.
 - (4) ,, The Book Company, Ltd., 4/4A, College Square.
 - (5) ,, Sen, Bros. & Co.,

15, College Square.

(6) ,, Thacker, Spink & Ci,

3, Esplanade, East.

- (7) ,, W. Newman & Co., Ltd., 3, Old Court House Street.
- Bombay-Messrs. D. B. Taraporevala, Sons & Co., 190, Hornby Road, Fort.

Poona—Messrs. The Oriental Book-supplying Agency,
15. Shukrawar.

- Madras—(1) Messrs. B. G. Paul & Co., 321, Thambu Chetty Street, Madras.
 - (2) Messrs. R. Cambray & Co.,

336, THAMBU CHETTY STREET.

Delhi-Messrs. The Oxford Book & Stationery Co.,

KASHMIR GATE.

- Lahore—The Proprietors, The Panjab Sanskrit Book Depot, Saidmitha Street.
- Lucknow—The Proprietor, Ganga Pustakmala Karyyalaya, 29-80, Aminabad Park. (Special Agents for Sale of Hindi Selections).

LANK TO SERVES

THE CALCUTTA REVIEW

Please write to the Manager, Calcutta Review,
Senate House, Calcutta
A FEW COMPLETE SETS ARE STILL AVAILABLE.

Sir Ksutosh Number

OF

THE CALCUTTA REVIEW

students Annas Twelve only. V. P. charges extra. Please write to The Manager, The Calculta Review.

Senate House, Calculla

THE CALJUTTA REVIEW

[Betd. 1844; Third Series 1921]

FIRST AND SECOND SERIES

Most of the volumes are out of print and very scarce.

A few copies are available for campleting sets. Prices may
be ascertained on application to

The Manager, Calcutta Review

IF YOU ARE GOING TO START A LABORATORY

ASK US
TO COMPLETELY EQUIP SAME

OUR STOCK IS THE LARGEST AND MOST VARIED IN INDIA

We can Equip a Complete B.Sc. or Two I.Sc. Laboratories by supplies ex stock

Everything done under expert supervision of Mr. P. C. Chattopadhyay, M.A., F.C.S. (Lond.), etc.

ON Account of Lower Cost, There is Considerable Reduction in Prices in All Lines

Scientific Supplies (Bengal) Co.,

29-36, COLLEGE STREET MARKET, "SCIENCE BLOCK," CALCUTTA.

Telegrams:
Bitisynd, Calcutta.

Telephone: Burrabazar, 524.

Printed and Published by Bhupendralal Bancries. Calcutta University Press, Senate House, Calcutta.